



VOL. XVIII.  
PROGRESS REPORT  
ON THE  
FOREST ADMINISTRATION  
OF THE  
MARWAR STATE  
( RAJPUTANA )



FOR THE YEAR

1916-17

( ENDING ON 30th SEPTEMBER 1917 )

BY

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*Superintendent, Forest Department.*

JODHPUR.

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## Review of the Report on Forest Administration of the Marwar State for 1916-17.

**FORESTS.**—The area under forests remains unaltered since last 2 years and stands classed as follows:—

Protected Forests, Khalsa	...	291'42	Sq. Miles.
"          Jagir	...	114'13	"      "
		<hr/>	
		405'55	Sq. Miles.
Unclassed Forests, Khalsa	...	22'61	"      "
"          Jagir	...	19'30	"      "
		<hr/>	
		447'46	"      "

The Superintendent reports that for certain reasons-economical and administrative- the tentative formation of Forest Divisions reported in last year has been abolished and the old system of working by ranges as units reverted to in compliance with the order of the Mehkma Khas dated the 28th August 1917.

**BOUNDARY WORK.**—99 Pacea pillars were constructed to replace old Katcha-ones in Sojat range at a cost of rupees 129-14. 82 chains of the outer boundary line in Bali and Sojat ranges were cleared. The Boundary Record of Khorla, Kantalia, Kot and Bagole blocks was prepared by the Survey party covering a length of 71.5 miles.

**SURVEY & SETTLEMENT.**—A detailed survey of Khorla, Kot and Bagole blocks was made by the Forest Survey Party and 100 copies of the Maps of each of these blocks were printed by the Photo Zinco-graph process at the Roorkee College Press.

**WORKING PLANS.**—The collection of data for working plans of the Bada-Gudha and Khorla Blocks is fairly progressing.

The revised working plan of the whole of the Aravelli Forests is being gradually put in force and Coppice Coupes were leased to contractors for felling at an average rate of Rs. 5/- per acre.

The cost of survey and working plans came to be Rs. 2, 236/-

**FOREST OFFENCES.**—The total number of such offences was 599 as against 648 in the previous year-586 in Khalsa and 13 in Jagir Forests. All of them were compounded except 3 which were sent to the Courts.

**CATTLE POUNDS.**—There are cattle pounds in charge of this department in which 5,298 heads of cattle were impounded in the year under report. The total income from this source was Rs. 2,447/- and expenditure Rs. 664/-.

**GRASS AND GRAZING.**—38,308 cattle in the Khalsa and 11,746 in Jagir Forests were admitted for grazing as against 85,227 and 11,897 respectively last year.

The grass cut during the year for storage was 11,878 maunds and 5 srs. of which 182 mds. 25 srs. was sold and 852 mds. 18 srs. was departmentally used for silage, &c. The balance in hand together with the previous stock was 11,801 mds. 35 srs.

**PROTECTION FROM FIRE.**—No case of fire occurred in the Forest during the year under report.

**Financial results.**—The following scale shows the revenue and expenditure of the Forest Department:—

KHALSA,			1916-17	1915-16.
Revenue	...	...	Rs. 106,707/-	97,757/-
Expenditure	...	...	Rs. 58,200/-	70,881/-
Surplus	...	...	Rs. 48,507/-	26,876/-

The compensation paid to Jagirdars was Rs. 1,507/-

JAGIR,			1916-17	1915-16
Revenue	...	...	7,517	4,700/-
Expenditure	...	...	3,226/-	2,059/-
Surplus	...	...	4,291/-	2,641/-

**ARBORICULTURE.**—8,053 new plants were added, making a total of 34,817 both in the Districts and Head-Quarters, with following figures for expenditure and revenue:—

			1916-17	1915-16
Expenditure	...	...	12,452/-	15,116
Revenue	...	...	1,472/-	1,647/-

**EXPERIMENTAL FARMS.**—The Agricultural Experimental Farm at Jagatsagar, under the management of the Forest Department suffered more or less damage during the unusual rainfall. The expenditure on account of the Farm was Rs. 8,627/- and the revenue Rs. 1,827/-

**GEOLOGY.**—The Wolfram Mines at Degana turned 52 tons and 18 cwt. 1 qrs. 26 lbs. of ore, yielding Rs. 10,084 as royalty to the State. The Graphite Mines of Bar, Hirawas and Pokarn-ki-nadi were provisionally given over to Messrs. Sorabji Dadabhoy of Ajmer for the working at 42% of the realised value; while Selenite, Gypsum, red and yellow Ochres and white Kaolin of the Barmer Region were leased to Messrs. Ramanarayan Bansi Lal for Rs. 1,025 per annum.

The contract for exporting red-mottled granite from the Jasai quarry to Karachi was given to Abdul Rahim of Jodhpur at 2 pies per maund as Royalty. 16 wagons of it was removed yielding Rs. 50-10-0. The Mica deposits of Behra Forests were leased out to Tarachand of Bijapur, Pergana Bali for Rs. 25/- per annum.

The coloured marble quarries of Raipur and Bar were however lying unexploited for want of Railway transport on account of the War.

Sampling and sundry sales in-Asbestos, &c, realized Rs. 182/-. The financial results of Geological Department are as follows:—

			1916-17	1915-16
Revenue	...	...	Rs. 16,448	Rs. 7,001/-
Expenditure	...	...	Rs. 1,847/-	Rs. 1,283/-
Surplus	...	...	Rs. 14,601	Rs. 5,718/-

EXHIBITION AND FOREST INDUSTRIES.—The Chaitri cattle Fair at Tilwara was made more attractive by holding an Agricultural and Industrial Exhibition there for a fortnight. Contributions of Marwar Arts and Industrial Products were made to the Imperial Forest Research Institute, Dehra Dun and to the Commercial Museum, Calcutta.

The Marwar Forest Timber Factory at Jodhpur was worked as before by Mistri Ram Ratan as a private concern under the patronage of the State. It turned out furniture worth Rs. 4,760 $\frac{3}{4}$ . The lacquered wood work of Bagri found market in London through Messrs. Pilley, Aston and Wright.

R. B. Pt. SUKHDEO PRASAD, B. A., C. I. E.

Jodhpur 25th April 1919. }

Revenue Member,

Regency Council,

Raj Marwar.





PROGRESS REPORT.  
ON THE  
**FOREST ADMINISTRATION.**  
OF THE  
**Marwar State**  
**(Rajputana,)**

For the year 1916-17 (Ending on 30th September 1917.)

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INTRODUCTION.

1. The predominating feature of the year under report was excessive rainfall and more or less humid conditions prevailing throughout the year so much so that hot weather characterised by scorching winds locally called "Looh", was practically absent from the programme of seasons; and, the aggregate amount of rainfall during the year came to "120" in places against "15", which within the memory of the present generation had never before been experienced; and apparently beats the past whole century record.

(a) As was expected, such abnormal and extreme conditions of weather did not pass without shewing equally abnormal effects in other directions and we had dreadful malaria, floods with their inevitable abnormal influence on trade and traffic, scarcity of provisions and labour. &c.

(b) Havoc amongst transport animals—specially camels was very heavy insect pests and injurious climbers, rank growth of herbs and inferior vegetation, wet rot and swampiness of soil for whole seasons in otherwise dry localities, wet decay of grass crop on all low and flat grounds were very extraordinary events in an arid climate of Marwar, the growth and reproduction of arborescent vegetation in forests have, however, been not bad, on the whole.

2. Considering the abnormal conditions of labour and weather affecting the departmental working very adversely, the finance of the Department has been on the contrary exceptionally good beating like rainfall the whole liferecords of the Department, being a record over record years in respect of net surplus which came to Rs. 48,507 against Rs. 26,876 of last year, Rs. 33,595 of past 5 year's average and 41,581 of the past highest record.

3. The Forest and allied industries have received a good impetus this year, owing to successful exhibition and demonstration at the Tilwara Chattri Fair, &c, sampling to outside markets of Karachi, London (England) show at Dehra-dun Forest Research Museum and Calcutta commercial Museum.

## CHAPTER I.

## CONSTITUTION OF FORESTS.

*Section I. Alteration in areas.*

1. The area of the State forests remained the same on spot as that of the last year, but on record a change is sure, due to recomputation from the new accurate Forest Topographical survey maps just to be completed. The original maps of General Boundary Settlement Plan Table survey skeleton sheets being not so accurate and detailed and depending more on superficial measurements, the horizontal projections especially of the hilly tracts on a plan are not so true as they ought to be owing to the angles of the corners of the plan appearing more or less, enlarged or contracted in consequence of the sides enclosing them increasing or decreasing comparatively due to chaining on undulating ground being not as accurate and reducible to horizontal equivalents as in trigonometrical survey. These change will be brought on books, the next year, however.

		1915-16.	1916-17
Protected forests...	{ Khalsa	... 291.42 sq. miles.	291.42 sq. miles.
	{ Jagir	... 114.13      „	114.13      „
	Total	... 405.55 sq. miles.	405.55 sq. miles.
Unclassed land or public forests....	{ Khalsa	... 22.61 sq. miles.	22.61 sq. miles.
	{ Jagir	... 19.30 sq. miles.	19.30 sq. miles.
	Total	... 447.46 sq. miles.	447.46 sq. miles.

2. The area under forest conservancy is divided as follows:—

Forest Conservancy	...	405.55 sq. miles.
Fuel and Fodder reserves	...	22.61      „
Jagir unclassified forests	...	19.30      „
Total	...	447.46 sq. miles.

**Section II. Forest Settlement**

3. This important part of the preliminary Forest organisation is complete except in the case of a few small Jagir areas in Jaswantpura Range owing to resistance by Jagirdars of Puran, Rajiwas and Dorra.

**Section III Forest Demarcation.**

4. 99 new Pacca masonry pillars to replace the Kutcha ones were constructed in Sojat Range at a cost of Rs 129-14-0 the other old pillars in almost all the ranges being white washed and kept in order, as usual.

5. 82 Chains of the outter boundaryline were cleared through contractors in Bali and Sojat Ranges. The boundary record of Khorla, Kantalia, Kot and Eagol blocks covering a length of 71.5 miles was prepared by the survey party.

### Section IV Survey.

6. The detailed survey work of the Khorla, Gudha and Kantalia blocks of Sojat Range, Kot and Bagol of Desuri Range, were taken in hand and full details of the names of peaks, nallas, frontier boundary and such like were surveyed and plotted on the enlarged sheet during the year under report.

The maps, 100 each of Gudha, Kantalia, Kot, Khorla and Bagol blocks were printed at the T. C. E. College, Roorkee Workshop

The coppice coupe maps of the year were prepared and demarcated on spot.

## CHAPTER II.

### MANAGEMENT OF STATE FORESTS

#### *Section I. Regulation of Management.*

##### (a) Preparation and control of Working Plans.

7. In the Dhau Zone worked on Coppice with standards system, the year's allotted coupes were properly demarcated, standards marked; and out of the 16 coupes, 7 were sold standing to contractors, by auction, at an average rate of Rs. 5 per acre against Rs. 4-9-4 of last year, with the following results. Bali Range: out of 5 coupes only 1 of Bijapur, area 210 ac. was worked by a contractor of Jodhpur market, but owing to railway restrictions and early and long continuous rainy season, only part of it could be worked the remainder has been allowed to be cut by the same contractor, the next year, on a shorter time limit and on payment by him of Rs. 1-13-4 per acre over and above the full price already recovered from him. Desuri Range: out of 4 coupes, only 1 of Kot area 86 ac. was cut by contractor Sheik Abdulla of Ajmer.

Sojat Range out of 7 coupes, 5 were worked by the above named. In reality the Ajmer market is better established with a fixed permanent annual demand depending upon its nearest forest area of Aravallis and a number of well-capitalised and regularly working contractors; while the local market of Jodhpur, Pali, Summerpur, &c, are not of this nature being more or less fluctuating in rates and demands. The people of these places are loathe to invest large capital and take the trouble of going to forests to do the hard out-of-way forest contractor's business, but most of the local dealers remain content with the import of readily available inferior and little cheaper Khejra, Babul, Kumath, &c, green firewood from the surrounding and open jungle or Sindh markets, although it in the long run compares but unfavourably with the much liked good Dhau (*A. pendula*) wood both in point of cost and ease of dealing.

8. This rainy season, the conditions of the firewood market were the most unfavourable for the daily consumer and very profitable, though hard, for the seller. For a while, the rate of ordinary inferior firewood rose to about  $\frac{1}{2}$  a maund a rupee and even for that sufficient quantity was

not easily and readily available, owing, of course, to the most extra-ordinary heavy continuous rainfall and consequent more or less severe and repeated breaches on all sides in the railway line and dreadful Malarial season causing a havoc amongst the population confining to bed the working classes and restricting transport conditions very badly, in addition to the prevailing restrictions of railway traffic owing to the present War.

9. These conditions have, however, opened the eyes of all concerned to the importance of reserved local forests existing or non-existing, for the time being; and it is expected that in the immediate future, at least a greater precaution will be taken to store firewood from all available sources with greater care and energy; and as a net result of it, the fire-wood yielding areas both the dead and dry wood utilisation sources and green wood coppice fellings, are likely to be worked intensely.

#### (b) Preliminary Working Plan.

10. A Working Plan for the systematic exploitation, extension and improvement of the Anwal (*Cassia auriculata*) areas in Marwar was prepared and submitted per letter dated 29th, December 1916 to the Mehkma Khas for approval, where it remained pending up to the close of the year.

11. Also, a detailed practical scheme for the scientific and business-like handling of the old propaganda of forming Fuel and Fodder Reserves advocated by the famous Expert, Dr. Voelcker Famine Commissioner of 1891 was framed and submitted as per letter dated 3-8-16 for consideration of Mehkma Khas.

#### (c) Plan of Operations.

12. These were duly prepared and submitted by all the range Officers and sanctioned by the head office with the exception of certain items of expenditure pertaining to immediately unremunerative works; the conduct of the works on full scale proposed could not be forced owing to the out-break of early and heavy rains and to the scarceness of labour available, that principally hindered the pushing on of artificial regeneration, utilization of minor products and minor forest industries.

### Section II. Communications and Buildings.

#### (a) Roads and bridges.

(13) As remarked in paras 14 and 15 of last year's report, most of the required leads to the heart of the forest area, were taken in hand, newly laid out, extended and developed in a better condition, so on new track road or path were either aligned or constructed, only the petty, yet substantial repairs to what were already existing and were damaged by the heavy rains made at a total cost of Rs. 650-2-6 as under:—

Jodhpur Range	...	...	Rs 102-15-6
Bali	"	...	Rs. 193- 3-6
Desuri	"	...	Rs. 92-12-6
Sojat	"	...	Rs. 279-12-6
Jalore	"	...	Rs. 21- 6-6

14. None of the forest tracks is a metalled road necessitating the construction of pacca bridge and the exit for the lateral water courses during rains along them are generally provided by Irish bridges or Katcha drains; consequently no attempt has been made up till now to erect any pacca bridge.

(b) Buildings.

15. What were greatly in demand and wanted for the accommodation and quartering the protective, executive and inspecting staff at head quarters and on tour as well as for the protection of state cattle and depot articles, had all to a sufficient extent, been constructed last year (Vide paras 16 to 24) with the outlay sanctioned under forest and famine budgets. The required repairs were done to the existing buildings and new lodgings for the lower protective staff were erected as under at a total cost of Rs. 1391-10-0.

- (a) Jaswantpura range a small Chouki at Chitrori for Rs. 33-10-6.
- (b) Parbatsar range; Two huts and a fence at Pi and Bidiad costing ... .. 27-0-0
- (c) Desuri range; An office room, &c, made of Pacca bricks and mud mortar at Desuri Chouki were erected at an expenditure of ... .. 127-3-3
- (d) Sojat range; Forest guards quarters at Karmal and Deoli were constructed at a cost of ... 68-2-8
- (e) A depot Mohrir's room at Chandawal forest depot was prepraed at an outlay of ... .. 21-2-0

(c) Other works.

16. Last year, famine relief fund sanctioned as an additional provision for the construction of wells, water pits, tanks and other miscellaneous works (Vide para 30 to 32) considered necessary for the improvement of the forest and the facility of water supply to the cattle and general public &c fulfilled the apparent requirements of forest Choukis roads or passes and created a permanent item of expenditure for their repairs later on. But this part of the business pertaining to general public interests concerned more the P. W. D. and have to be taken care of by them in due course. Amount of Rs. 5-8 0 during the year under report was however, spent from forest funds where deemed necessary.

### SECTION III. PROTECTION OF FORESTS.

(a) General Protection.

17. The general protection of Forest was good as would appear from the decrease of offences. The Semi-wild tribe of Grassias used to graze their sheep and goats as usual inside the reserve and did not abide by the rules; and restrictions could only be partly enforced as per suggestion made in last year's report, para No. 33. In some ranges graziers other than Grassias were tempted to illicit grazing inside the protected forest owing partly to the comparatively rich fodder obtainable inside forests and partly to the exhaustion of the vegetation in Gujara left outside.

(18) 599 cases of the forest offences were reported to have occurred in State and Jagir forest managed by Raj against 648 cases of last year the decrease of 49 cases being due to good crop of grass found procurable outside the reserve and the habituated stealers of the forest products having been wholly engaged in their summer agricultural pursuits on account of good monsoon rains. Out of 599 cases, 3 cases were *chalaned* to Judicial courts while the rest being compounded departmentally.

The table below compares the results of the year under report and past 3 years.

Class of Offences.	Average for past 3 years.	Offences during the year.	Remarks.
Injury to forest by fire ...	5	1	
Unauthorised felling or removal of produce .. ...	2,05.3	209	
Grazing ... ..	223.3	282	
Other offences ... ..	129.3	107	
Total ... ..	563	599	

(19) As remarked in para 35 of last year's report the work of cattle pounds was separated from the Forest Department. The Jodhpur Sewari, Nana, Sadri, Saran, Chandawal and Marwar Junction station, &c. general cattle pounds were managed by the Forest Department 3994 cattle were impounded with the following results:—

Expenditure	...	Rs. 673-15-3
Revenue	...	Rs. 2417- 7-9
Net	...	Rs. 1793- 8-6

Cattle of all sorts on being arrested for illicit grazing in the reserved and protected area were sent to the different cattle pounds.

#### (B) Protection from fire.

(20) The success obtained in the area attempted to be protected from fire the year under report was good only (1½ acres) area was burnt by the outbreak of small fire which occurred in Khundias forest of Parbatsar Range, the incendiary was arrested and the case compounded departmentally. The favourable result was mainly due to the early and continuous monsoon rains that remained falling intermittently throughout the year. The fire lines were duly cleared off and fire guards maintained as usual. The expenditure came to Rs 216-0-0 against 7/—last year. The increase was due to the enlistment and entertaining the required no of fire patrols owing to the good crop of grass as well as other inflammable materials.

#### (c) Protection from cattle.

(21) It is traditionarily well known in Marwar that the deficiency rareness, infrequency or dearth of one year's rainfall is followed by the altered and contrary conditions and attitudes of the monsoon rains of the

succeeding years. The year under report came under the latter category and in consequence there of, there was an ample crop of grass outside the reserved and protected area; and the cattle admitted into the area of Khalsa forest came to only 12916 horned cattle add 4213 sheep, goats on fee and 11158 both sort, Free of charge, against 85227 cattle all sort last year of great scarcity.

**(d) Protection against injuries from natural causes.**

(22) The extraordinarily heavy rainfall that recurringly occurred during the major part of the year in an arid country like Marwar played an important part in the natural regeneration of injurious insects and wild animals. The defoliators and rodents that grew up in considerable number attacked the leaves, shoots, bark and roots of juicy plants causing a great damage to the vegetation, in general. Twice, stray and scarce swarms of locust pest visited the forest area making their nightly halts in the best part of the Aravalli forests. The unfavourable and unseasonable air laden with moisture blew throughout the year rendering fertilization of the arid Zone species entirely inert, the swampiness of the over-ground debris or detritus and the under-ground-water logged nature of the soil enfeebled the growing capacity of the seedlings and saplings to a certain extent. Frost did not appear at all.

**Section IV Sylviculture.**

**(a) Natural reproduction.**

23. Except in the valleys, dales and passes along water courses, the last year's saplings and coppice shoots grew well on the well drained sites, but the seed-lings of the year under report could not make good progress in the winter season owing to the excessive amount of moisture in the ground and great humidity of the air; later on, as the watery portion of both these agents continued to be reduced in quantity they regained their recuperative powers and after establishing themselves well gave out strong shoots and foliage. The seeds fallen over the ground could not germinate fully owing to the heavy rains as most of them had been taken down by the dashing current of water courses while the rest had been buried out under moist humus and water, could not make their appearance above ground and were rotten. Those of the hardy species that escaped these natural calamities and occupied their firm abode in situ, were growing prominently. The sprouting bamboo culms were excellent as remarked by the Inspector of Bali Range in his annual report.

**(b) Artificial reproduction.**

24. Some of the prominent blanks in different forests were filled up by partial pit and broadcast sowing of seeds of indigenous and exotic species at a cost of Rs. 252-24-6. Much more could have and ought to have been done had natural inclimencies of weather not interfered badly. Those seeds that germinated, established and escaped the unfavourable effect of heavy rains were doing well till the time of writing the report; some plants from the forest nurseries were put out into the forest along water courses and layers and cuttings were also planted in the open blanks.



25 The small forest nurseries at Sewari, Nana, Sadri, Desuri, Marwar Junction, Sojot Road, Sunda Mataji, Jalore and minor plant raising sites at Nana, Sadri, Hargan a and Desuri containing plants of different species were maintained as usual. The available plants were put out in the forest, special plantations and along road sides and were supplied to private cultivators in order to serve the above purpose of forest reclamation and public agricultural reform. The condition of the plants in the nursery was good on the whole, only those of Sunda nursery suffered to some extent on account of heavy rains

(c) Operations for the improvement of the growing stock.

26 only in Nana and Behra blocks the thinning and cleaning of old coppice coupes were taken in hand in order to remove the inferior species and climbers and provide more growing space to the coppice shoots of the principal valuable species. The removal of dead and dying trees from all the forests was kept continued during the working season the year under report. But the scarcity of labour and outbreak of Plague in almost all the villages adjacent to the forest area did not allow the conduct of this the improving operation feasibly and on larger scale.

27 In Jaswantpura Range the removal of dry culms from the bamboo clumps through the agency of purchasers at reduced rates and by department was acted up to a certain extent.

28 A four acres sample plot was demarcated in Javia forest Jaswantpur Range, the standing trees were coppiced and the area was enclosed with a fence. From the observations recorded in the range sample plot register, the Ber shoots predominate over Dhou and Kumat, the former measuring 6 feet in height while the later only 2' or 3' high.

(d) Experiments.

(29) Encouraged by success of most valuable Anwal (Cassia Auriculata) extension experiments further into the interior of Marwar, thousand of seeds were scattered broadcast in cultivated areas and dibbled in and success was good at Murdawa, Kantalia, Jalore and Jodhpur, &c.

30 A further attempt, as remarked in para 52 last year report, was made to start lac propagation operation in Desuri Range forest. 123 Dhak, Pipal, Ber, and Bar trees were inoculated with 525 seed sticks during the month of July but the result was not favourable owing to the unsuitable climatic conditions.

31 In the specially constructed pits for storing green fodder, as remarked in para 51 last year's report the following quantity of grass cut green and systematically ensilaged at a total cost of Rs. 64-0-0.

(a) Silo at Bijapur 488 mds

(b) Silo at Siwari 194 $\frac{3}{4}$  mds

out of 300 mds. of grass ensilaged into a pit dug up at Saram nursery, nothing was taken out but it appeared that the grass had rotten away, owing to adverse climatic conditions.

32 In Bali Range about 12 bottles of Rosa Oil were extracted from the grass under distillation system at a cost of Rs. 44-6-9. No attempt could be made in Jaswantpura or any other range as mentioned in para 54 last year's report owing to heavy rains and prevalence of epidemic disease among the villagers where from the labour was obtainable.

33 The exotics introduced in Marwar since the last 2 or 3 years in arboricultural plantation as remarked in para 55 last year's report were all doing well. A further extension was made with favourable results.

34 The experimental attempts made towards the research of the utility of certain minor forest products in their transformed or manufactured forms, were kept continued as the results obtained were encouraging and instructive.

(a) Manufacture of rubber from an indigenous creeper (*Cryptostegia grandiflora*)

(b) Utilization of drugs

(c) Extraction of gum-oleo-resin from salor

(d) Utilization of floss, bast fibre and milk of Ak.

## SECTION V. EXPLOITATION.

### (A) SYSTEM OF MANAGEMENT.

#### (a) Major Produce.

35. Generally the forests were worked under permit system, improvement fellings (the removal of dead and dying trees) selings and coppice with system which was in force in the eastern Aravalli Ranges only while the standard former two were in practice everywhere in the State Forests, in order to meet the local demands of the concession holders and purchasers.

#### (b) Minor Produce.

36. Some of the principal minor products were treated under contract system, some (grazing and bamboo cutting) under permit system; while, the rest under departmental removal in order to develop the local conditions of the area and control of concession holders and purchasers.

### (B) AGENCY OF EXPLOITATION,

#### (a) Departmental agency.

37. Outturn of timber and fuel cut and collected by the departmental agency under coppice with standard system and improvement and selection felling was 13340 cubic feet and 65435 cubic feet during the year as against 23431 cubic feet of timber 308196 cubic feet of fuel in the previous year. The decrease under both the items giving so much rest to the poor Marwar Forests was not unwelcome and was due chiefly to the heavy or continued rains and the spread of Malarial fever among the inhabitants of the villages adjoining the forest area wherefrom the labour was chiefly collected. Consequently the works under the proposed and planned out scheme could be put partially taken in hand for want of labour.

The total revenue derived from the sales of the departmentally exploited major and minor produce came to Rs. 49,930-14-2 or 50.94 per cent of the total forest gross revenue against Rs. 48,855-14-5. The increase came off mainly owing to the disposal of the last year's balance and the recovery of the outstandings of the minor produce sales.

The proceeds from the sale of bamboos, &c, removed during the year by Raj agency are given in the table below.

Particulars of produce						Value in Rupees
Bamboos	...	...	...	...	...	505
Grass	...	...	...	...	...	112
Honey, Hides and Lac &c.	...	...	...	...	...	
Gums, Fruits, and leaves	...	...	...	...	...	57
Miscellaneous.	...	...	...	...	...	12

(b) Purchasers.

38 The outturn of timber and fuel cut, collected and removed from the forests by consumers and purchasers amounted to 6617 cubic feet and 124075 cubic feet respectively as compared with 7911 cubic feet of timber and 143158 cubic feet of fuel during the preceeding year. The revenue obtained was Rs. 11796/- The decrease of both the items was due to the fact that the purchasers being engaged in raising their agricultural crops and other rural occupations pertaining thereto, could not come to their forest business. The heavy rains and Malarial fever took a certain share in this impediment.

The yield of coppice coupes worked up by the contractors in shape of timber, fuel and charcoal has been included in the above figure.

39 The total value of the minor forest produce removed including bamboos, grass, grazing, &c, and of the royalty (duty) levied on about 55000 mds of Anwal bark exported from all the Anwal producing Parganas was Rs. 37443 against Rs 37375 of the previous year. The increase is due mainly to the Anwal proceeds that materially affect the gross revenue. The table below shows in details the revenue

Particulars	Value Rs.	Remarks
Bamboos	671	
Grass, Grazing	5601	
Minerals, stones	336	
Anwal bark	27980	
Gums, fruits	527	
Miscellaneous	39	
Honey, Hides	2,298	
<b>Total</b>	<b>37,443</b>	

## (C) Right Holders

401,21,233 cubic feet of timber and 46,188 cubic feet of fuel against 40,809 cubic feet of timber, and 3,101 cubic feet of fuel last year, were removed by the right holders during year under report. The decrease is due to the fact stated already in para 62 last year's report. The estimated total value of these products came to Rs. 8494 while the well dues, price of bamboos and minor produce at reduced rates, realized was only Rs. 5355 creating a loss of Rs. 8704 sustained by the department for the concessions so graciously granted by the Durbar to the villagers of the vicinity of the forest area.

## (d) Free Grants

41. No real free grants were made during the year under report, while the free removal of forest produce and grazing by Grassia and Ravat first class villagers has been included in the quantity of forest produce extracted by the right holders.

## (e) Outturn and sources of forest produce

42. All the forest produce was extracted from the reserved and protected forests excepting a great quantity of Anwal bark from the area of Anwal producing Parganas. The total outturn of major produce was 40,290 cubic feet of timber and 2,15,698 cubic feet of fuel as compared with 72,121 cubic feet of timber and 48,437 cubic feet of fuel last year. The value of minor produce removed is calculated to be Rs. 18,300 as against Rs. 47,360 last year. The reasons for the decrease have been given above under different agencies of exploitation.

## CHAPTER III.

## FINANCIAL RESULTS.

43. The revenue and expenditure of the year under report as compared with those of preceding year and the average of past 5 years are given in the table below; the surplus being the highest ever recorded so far.

Year.	Revenue.	Charges.	Surplus.	Remarks
1916-17	1,06,708	58,200	48,508	
1915-16	97,757	70,881	26,876	
Average of past 5 years.	98,510	64,923	33,591	

44. Rs. 6,389-2-5 were realised from major forest produce giving an increase of Rs. 10,891-6-3 over that realised during the last year, the reason being that the last year's balance of forest produce from depot was sold and the outstandings recovered. It is 60 per cent of the gross revenue

45. Rs. 35,481-0-10 were collected from the sales of minor produce, including bamboos, grass, grazing and Anwal bark in comparison to Rs. 39,708-10-3 last year showing a decrease of Rs. 4,227-9-5 that is chiefly due to the reasons given in para above. Rs. 717-8-3 were realised from other sources including fuel and fodder reserves, that represents 7 per cent of the total forest revenue. Rs. 54,359-14-2 of revenue were derived through the exploitation by Raj agency and Rs. 52,471-13-4 otherwise.

46. The total expenditure of the year under report came to Rs. 58200-0-0 representing a decrease of Rs. 12681-5-9 in comparison to that of the last year; out of that Rs. 23175-7-9 were spent on establishment charges and Rs. 33014-12-4 and Rs. 2009-12-9 on forest conservancy works and fuel and fodder reserves respectively.

#### CHAPTER IV.

##### Administration.

47. The Hawala, Customs, and Military departments cooperated the Forest Department well in the necessary matters of interest and in the supply of camel Sawars and peons. Thus the relations with one another were concordant.

48. Pandit Atma Ram Gour; Survey Officer continued to work in Survey Branch, in collecting data for working plan, in designing and planning of forest works and conducted the prospecting and forest minor industrial operations.

49. Messrs. Gokal Chand, Doulat Ram Saini and Sita Ram remained in charge of Western, Eastern and Direction Divisions respectively till the return of Pandit A. Riksheshwar D. D. R. from the furlough granted to him. After that the arrangement and adjustment was made as under.

- (a) Pt. Riksheshwar D. D. R. appointed Assistant Superintendent of forests on 29 June 1917 was spoken of to supervise the works of western Aravalli ranges, working plans and survey, and he worked in that capacity till the close of the year.
- (b) Mr. Gokul Chand was transferred as a forest Inspector in charge of Sojot Range. He remained there till the year closed.
- (c) Mr. Doulat Ram Saini; was, ordered to look after Bali and depot ranges as a Forest Inspector during the latter part of the year.
- (d) Mr. Sita Ram Kachhwa'ha'; remained in charge of Jodhpur Range, Agricultural farm and Arboriculture as a forest Inspector.

50. Messrs Sukh Raj Byas and Khem Raj Solankhi Deputy Rangers remained for a greater part of the year in charge of Sojot and Siwana ranges, but during the latter part of the year under report Mr. Khem Raj was transferred to Desuri Range and Mr. Sukh Raj who was deputed to survey work of western Aravalli ranges was suspended for the misuse of State money.

51. Two more Marwari youths who were sent to Balaghat Forest School for training, came out successful in the month of March 1917 one of them Mr. Shri Kishan Kachhwa'ha' was first put in charge of Bali Range under the supervision of Mr. Doulat Ram Saini the then Divisional Forest Officer and afterwards was transferred to depot range at the end of the year under report The other Mr. Delawar Mohmed was first put in charge of Desuri Range and afterward was transferred to Jaswantpura Range at the close of the year. They all worked fairly satisfactorily except Sukh Raj.

52. Munshi Dasu Ram the Head Clerk was made to retire during the month of February 1917 and Pt. Fateh Raj Tiwari was employed in his stead. Owing to Malarial Epidemic the Office Staff on the whole could not keep pace with the demands of the progressive work.

53. The dismissals ordered reductions made and fines awarded to the different members of the forest department during the year are given in the following statement. The Foresters, Head Guards and others generally worked well

Class of Subordinates	Dismissals.	Reductions.	suspension.	Fines &c.
Dy. Rangers	...	...	1	...
Foresters	...	...	...	5
Head Guards	...	1	1	8
Mohrirs	...	4	...	33
Guards	...	3	3	23
Clerks	...	...	1	3

54. An enough number of Forestry trained students has been entertained for the present and an attempt, as remarked in para 74 last year's report was made to impart preliminary technical training in higher forest survey in order to economise the surveywork of different ranges. Mr. Sukh Raj was placed as a member of first batch on survey permanently and the others will be deputed by turn.

## CHAPTER V.

### GENERAL.

#### Section A. Grass storage and silage

55. Luxuriant and plentiful quantity of grass produced during the year owing to good rains, about 11,878 mds. 5 seers, were cut to be stored and ensilaged, out of which 182 Mds. 25 seers was sold for Rs. 32-5-6. 852 mds. 18 seers were buried in silo and the rest together with the ending balance of last year stood in hand 12496 mds 15 seers at the close of the year Rs 3596-0-3 were spent over the new grass cut and stored.

56. All the silos named under para 76 of last year's report were kept in good working order and the deposit of newly cut grass was put in them at different places

#### Section B. fuel and fodder reserves.

57. Partial sowing of seeds of indigenous species (Babul, Khejra, Kumrat, &c.) broadcast and into pits was under-taken on all plots of fuel and fodder reserves; and some plants from the nurseries at Jodhpur were sent to Balotra and Tilwara plantations to be put out in the open in order to fill in the gaps. The germination of the seeds was excellent and the plants established well, but the heaviest rains endangered the progress latter on, most of the seedlings and plants weathered out; in the long run the result turned out satisfactory.

58. All the plantations at Balotra Ry: Station were maintained in good order and new plants from nurseries were introduced; but the heaviest flood of Luni river over its banks during the torrential rains created an excessive amount of damage both to the sides and vegetable there or by erosion and stagnation of water. The arid Zone plants suffered much from heaviest rains.

59. Shikarkhana areas in the environs of Jodhpur were kept as a part of Jor under the department for a period of 10 mouths and after this they were in part handed over to Shikarkhana and Sardar Rasala department as per Mehkma khas resolution No: 857 of 6 th July 18. But some petty portion connected with arboriculture surrounding Jodhpur was continued to be managed by the Forest Department as fuel and fodder reserves.

The revenue and expenditure of this concern are shewn as under

				Rs	as.	p
Revenue ...	...	...	...	2 288	11	8
Expenditure ...	...	...	...	2,000	12	9
Surplus ..	...	...	...		14	11

60. The surplus was, in comparison to that of last year, small by Rs. 1,145-9-4 the reason being the separation of a greater part of Jodhpur Jor from the area under forest management and not permitting the normal number of cattle into other areas on account of ample grass available outside.

#### Section C Arboriculture

##### ( A ) At capital

61. The existing road side plantings and plantations were kept as usual in good order and looked after; the gaps were filled up with 3035 plants from the nurseries

62. In addition to the upkeep and fostering of the plants put out last year at race course ground, Mahamandir town road, Jodha Squadron well, Chensukh Bera, Pota, Revenue Offices of court buildings and Taparion-ka-talao (vide para 82 of last year report), the following new operations were taken in hand. The plants were all in good condition

1. Mandoie road upto Khokaria
2. Revenue Offices road
3. Raikabagh Road
4. Palace Pologround Road
5. Khijor ( date ) Chahak bel (*Cryptostegia grandiflora*), Mahua and Cassia auriculata planting at Ravan-ka-Bhala and Race course.
6. The Mahua plantation at Chensukh-ka-Bera
7. The Khair (*Acacia Catechu*) Jinja (*Bauhinia*), &c, planting at Bada Bhakar (Marwar Abu)

63. The private charity process of planting trees in topes and groves at some specified places of public utility and interest, was further extended with the aid of the State and plants were given free of charge for this co-operation to be put out in the gaps and on new spots.

64. The planting and sowing operations at Chhitar naked hill were kept continued in order to clothe the area with a cover of indigenous vegetation as remarked in para 84 of last year's report. The plants put out last year were closely looked after and reared; and new plants were added in order to fill in the vacancies and cover new blanks. Sowing of seeds in pits, pots and ditches were also made in order to achieve the end, the germination was good.

65. At the end of the year the plants in hand at nurseries and in situ along roadside and in plantations were 11790 and 25725 respectively against 10924 and 15840 last year. The increase is due to greater efforts at nursery work. 887 plants died out, 986 were sent out to the district arboriculture concerns and 57 were given free from the nurseries. Out of road side plants 7437 were continually watered during the year.

66. Rs 853-0-6 were realised from the sale of dry trees and windfalls. The nurseries at the wells (Chensukh-ka-Bera, Jodha Squadron, Col. Lock, Shri Samadri School) and small tanks (Paota and Chittar) contained 16755 plants including the last year's balance, out of that 3035 plants were put out along road side avenues, 986 sent out in the district, 57 given free, and 817 died out, leaving a balance 11790 in hand at the close of the year.

67. The Biyas-ki-Baori and Khema-ka-Kua wells were continued to be worked, on behalf of Dharampura and Shikar Khana Department for watering pigs, city cattle and public at an expenditure of Rs. 30/13 and Rs. 134/8/6 respectively.

#### B In the Districts.

68. The Tilwara cattle fair ground plantation raised for shade purposes suffered a little by the highest flood of Luni river ever recorded. Most of the plants were uprooted, and taken along by the forcible current of the running water at a great rapidity. The gaps so formed were filled up by new plants supplied from Jodhpur nurseries. But, the good growth of artificial and natural vegetation more than recouped the loss. At the close of the year there 250 were plants and Rs. 22011 were spent over their maintenance.

69. Some of the plants put out and raised by State aided public charity along the cart track from Samadri J. B. Ry. Station to the village proper, were in a good condition while the others that had suffered severely during the last drought and heavy rains were in a sickly state to be replaced by new ones.



70. The Summaipur arboriculture work at the Turkish prisoners-of-war Camp, was properly maintained at a cost of Rs 452/14/3. But the demarcation of a new site ordered from Mehkama Khas to be put under arboricultural operation, could not be started during the year under report.

71. Rs. 349-3-0 were spent on the maintenance, improvement and extension of Faino-Bali road, that contained both last year's balance and the new plants numbering 729 out of that 23 plants died out while the rest remained in a good condition, 383 required watering all the year round; Rs. 84-15-0 were spent.

This is the best of the roadside plantings in districts containing many a fruit plants such as Mahua, Mango, &c, in a flourishing condition.

72. The supervision of Haripur Station road side plants was duly kept, the gaps formed were refilled and a further extension made Rs. 108-13-3 were further spent on raising 76 fruit plants in the farm of  $1\frac{1}{2}$  acres established near tank Madhobilas ( vide para 92 of last year's report ) It is a step towards help to be given to cultivators in their agricultural pursuits.

73. The plantings at Barmer Pali and Sardarsamand roads were properly looked after and maintained,

74. Rs. 498/5/6 were spent on the up-keep of the Jayappa Scindia Chhattri orchard at Taosar (Nagore) containing plants.

75. The Merta nursery was maintained with a plantation of fruit trees at a cost of Rs. 88/4 about 150 plants were given free to cultivators.

76. The road side planting at Saran was duly maintained and some plants were newly put out.

77. The revenue derived from the arboricultural works came to Rs. 147-6-6 and the expenditure amounted to 12,452-6-9 as compared with Rs. 1647-12-6 and Rs. 15,116-12-6 respectively last year.

						Rs. as p.
1. Forester	...	...	...	...	...	754 14 0
2. Malies and Choukidar	...	...	...	...	...	3,498 7 0
3. Bhistics and Choukidar	...	...	...	...	...	3,972 10 6
4. Sagriya	...	...	...	...	...	495 5 3
5. Grass-corn	...	...	...	...	...	940 14 6
6. Planting	...	...	...	...	...	909 12 0
7. Fencing	...	...	...	...	...	1,213 5 9
8. Tools	...	...	...	...	...	151 9 0
9. Mal and Gharlies	...	...	...	...	...	156 4 9
10. Miscellaneous	...	...	...	...	...	182 7 0
11. Polo-ground	...	...	...	...	...	176 13 0
Total						12,452 6 9

**D. Experimental Agricultural and horticultural farm.**

78. The experimental farm at Jagatsagar, Jodhpur was kept up for the Agricultural and Horticultural aims and ends proposed and anticipated. But the heaviest monsoon rains of the year proved partly disadvantageous or detrimental in some respect and partly profitable in other concerns. Owing to the constant overflow of the tank situated to the west of the farm proper at a higher level through the sluices, canals, drains and other low courses, washing away surface soil and causing damage to petty earthwork here and there, but the masonry work of the tank canals, &c, stood well the severest test so soon after their construction. The crops and plants in the beds remained under flood water that formed an envelope round about the seedlings and right up to their tops, impeded entirely the free circulation of air in the soil and above ground for a long time and in the long run killed many of them outright. The sediment of new layer of humus soil deposited by the subsiding current of slowly moving water over the seed beds, the retention of moisture in the sandy subsoil for a greater interval of time, the high water table procurable in all the wells and Baories throughout the year, the continued presence of intense humidity in the surrounding atmosphere, and other favorable climatic conditions induced the pomegranates, roses, goondas, grapes and other species requiring more humid and mild temperature such as sugar-cane, betel vine, potatoes, orchids, palms, &c, to grow more vigorously and fructify copiously or at an abnormally early stage and period bringing in a good return of marketable produce. But those species that do not require so much humidity in the air and moisture in the ground such as Prosopis, Atriplex, Zizyphus, &c, suffered to a certain extent by wet leaching or rotting on account of the heavy rains and did not make good progress.

79. Mr. Jagdish G. Chhot; an active Guard of J. B. Ry (Hyd. Sindh Sec.) and a good or & writer on agricultural, &c, subjects, was appointed Resorder to the Agricultural & Horticultural Farm Jodhpur on 21st November 1916. He worked satisfactorily.

80. There being non restriction regarding the general admission of public visitors specially farmers and cultivators, in the farm, at any time of the year in order to see the different methods of agriculture in practice on the spot and to learn something therefrom, the public frequented the site every now and then, took great interest in the matter and were much pleased with the encouraging results of the vegetable activity and prosperity of the crops grown over the area which was once a barren waste of sand dunes. Many of the visitors took plants, seeds, &c. from the farm free or at reduced prices. The revenue and expenditure of the business stood as under.

Revenue ... .. Rs. 1,827

Expenditure ... .. Rs. 8,627.

81. Rev. Dr. Sam Higginbottom, M. A. B. Sc. Principal Allahabad Agricultural Institute (Ewing Christian College Naini) on being invited by Darbar to reports on the Improvements of Agriculture in Marwar, visited the Farm and Forest nurseries and warmly appreciated the steps taken and the results achieved so far in this important direction by the Forest Department, vide his full report attached (Appendix A) Khan Bahadur

Merwanji Pestonji B. A.; L. B. the Musahib Ala ( Prime Minister ) of Marwar State and Rao Raja Narpatsinghji A. D. C. & Household Controller to H. H. the Maharaja saheb Bahadur, K. C. B. E. of Jodhpur, also visited the Agri. Farm on 4th March 1917 and 8th August 1917 respectively and both were highly pleased.

### Section (E) Jagir Forests.

82. As per the directions and principles laid down in para 107 of the report of 1913-14, the Jagir forests were looked after by the department accordingly

#### ( A ) Class- State Supervision free.

		1915-16	1916-17
Raipur	Revenue	3,047 12 0	5,034 13 9
	Expenditure	1,313 1 6	2,263 9 0
Ghanerao	Revenue	729 10 3	1,054 1 3
	Expenditure	394 7 3	521 13 0

#### ( B ) Class, Anna Share System, established ( shares )

		1915-16	1916-17
Bar	Revenue	99 14 0	98 8 3
	Expenditure	41 10 6	43 15 0
Barantia	Revenue	19 15 6	173 2 0
	Expenditure	103 7 0	98 11 6
Babra	Revenue	20 6 5	97 12 9
	Expenditure	103 0 0	95 6 0
Somel	Revenue	30 5 0	178 4 0
	Expenditure	103 1 0	94 14 0

#### ( C ) Class,—net surplus payment lease system.

		1915-16	1916-17
Parbatsar	Revenue	649 8 0	812 4 9
	Expenditure	420 14 3	600 14 3

#### ( D ) Class,—provisional khalsa management

#### JASWANTPURA

10 Jagir forests of Uchmat, Chekhlan, Dantlawas, Puran, Do'ra, Rajkiawas, Paharpura, Gangagura, Khāndadeval and Basra and 3 Mishlarka (joint) areas of Savidhar ( 2/5 Jagir and 3/5 Khalsa ), Chitrori ( 1/3 Jagir and 2/3 Khalsa ), Sheogarh ( half by half ), were managed by the Department yielding revenue as follows:—

	1915-16	1916-17
Revenue	Rs. 1,873 13 0	2,126 4 7

The expenditure was included in Khalsa figure of the range.

## JALORE.

Forest areas of Kolar, Meda, Pandegaron, Chiparatment, Dhaula and Mailawas were also looked after by the Forest Department and Rs. 217-8-6 were realised as revenue in comparison to Rs. 253-4-9 of last year the expenditure was included in Khalsa figures of the range.

83. Rs. 217-8-6 from Jalore forests and Rs. 627/5/16 from Jaswantpura, making a total of Rs. 844/14 were recovered as revenue that was satisfactory considering the great betterment and rest period being enjoyed by the forest vegetation so very ruthlessly mutilated and over-exploited by the ignorant criminal forest tribes—Menas and Bhils and greedy Jagirdars. The small realization was also due to the different Jagirdars not abiding by the forest rules and regulations, and showing great indifference in the conduct of the forest works.

*(F) Geology and Mining.*

84. The year under report stands as a second year of the newly organised Geological and mining business worked separately on well established lines and systems. The results obtained are favourable as shown below:-

- (a) The output from Degana Renwat hills wolfram mine was 33 tons 5 cwt. 12 lb removed by Messrs. Pearson and Rice 19 tons. 13 cwt. 1qr. 14 lbs. by Messrs. Pearson and Rolfe Morris of Calcutta the parties of Br, syndicate. A royalty of Rs. 10084-13-4 was recovered at 7½ per cent up to the end of the year under report
- (b) A contract for the removal of graphite ore at Bar, Hirawas Pokarian-ki-naddi was given to Messrs. Dadabhai Sorabji Vakil Ajinere at 45 per cent royalty of the realised value of article removed but no ore was carried away till the end of the year. Another contract of Jasai red mottled granite newly discovered was also given to Mr. Abdul Rahman of Jodhpur at Rs. -/- 2 per maund royalty. 16 wagon loads weighing each 272 mds. were removed and Rs. 50-10-9 were derived therefrom. Rs. 2/8/- per wagon were charged as customs duty in addition to the royalty.
- (c) A contract of Mica Schist ore was given to a local man named Tara Chand of Bijapur at Rs. 25/- per year, the amount of the contract having been realised.
- (d) A contract of Gypsum of Kavas, selentite of Chitar-ka-pahar, Gungamitti of Sheo, Banar Mitti (white Kaolin), red and yellow ochre of Bhiwan of Sheo was given, from the month of February 1917, to Messrs. Ramnarayan Bansilal Sonar of Jodhpur for 3 years at the rate of Rs. 1,025/- per year Rs. 525/- were recovered up to the end of year.

(e) Marble stones different varieties were not removed from the mines either departmentally or on contract during the year under report owing to the demand from outside being slack and the wages dear. The want of Railway transport means on account of war chiefly impeded the working.

(f) 335½ mds. of se'enite were sold from the deposits collected departmentally to Mr. Ram Narayan Sonar of Jodhpur at -/8/-per md. and Rs. 167-12-0 were realised as revenue. Small sale of Asbestos, Felsper, Mica, Manganese, cobaltiferous manganese was made.

85. The working of different mines departmentally for sampling or experimental purposes was kept continued and the work of prospecting went on regularly all the year round with good result, Forester Jainarain Joshi giving satisfaction.

86. The finance of the business stands as below:-

			1,915 16	1,916-17
			Rs.	Rs.
Revenue	...	...	7,001 0 0	16,448 0 0
Expenditure	...	...	1,283 9 1	1,847 0 0

It indicates that the business is turning out more and more lucrative every year under the Department without any extra staff or expenditure.

(g) *Forest and General Industries.*

87. **Timber Factory:-**

Mistry Ram Ratan worked as usual, his private but State patronised Marwar Timber Factory on sound basis throughout the year under the general supervision and technical aid from this Department. Both indigenous and exotic timbers were utilised in the manufacture of variegated high class furniture. The combination of the two sort of timber was started in order to encourage the local carpenters to imitate the example and consume the so far neglected indigenous timber of Marwar on a large scale with profit so that the use of the foreign material might diminish gradually. Furniture of the value of Rs. 4760/- were made during the year.

88. In order to popularise and put to market the samples of different manufactures and art pieces of Marwar an impetus and encouragement was given to the enterprisers and workmen by setting them to prepare the best possible articles of their own designs and invention. They were purchased from them put to exhibition and demonstration in museum for show and sale. A great demand was created in India and overseas for some of these samples being sent to various persons agents, firms and C ys.

The following are the works taken in hand:-

(a) Bagri lacquered wood turnery and Jaitaran Rosewood carving and turnery.

- (b) Nagour iron works
- (c) Meria ivory and khas-Khas works
- (d) Jodhpur and Meria pottery works
- (e) Jalore, Meria, Balotra, Pali and Pipar cotton works, white or coloured, calico printed, or tied and dyed, checquered cloth.
- (f) Phalodi and Nagour woolen works.
- (g) Jodhpur and Kuchaman brass and copper works.
- (h) Jodhpur leather works

89. A small industrial products stall was maintained at Jodhpur Railway Station as remarked in para 101 last year's report for the purposes narrated therein.

90. An attempt was also made to manufacture the following at Jodhpur the samples were sent out to be tested by some experts and the results obtained were encouraging.

- (a) Tanning extracts from Anwal, Babul, Dasson, Bakli, Mehdi-bark. made into consolidated cakes to be exhibited at the Marwar Chaitri cattle fair
- (b) Vegetable febrifuge:-
- (c) All sorts of oil paints.
- (d) Copal Varnish.
- (e) Water colour cakes and India ink stick.
- (f) Washable water colours for building.
- (g) Artistic fine art paints.
- (h) Soda-bicarbonates
- (i) A drawing camera called View adjuster was constructed of wood a new invention made by Atma Ram Gour Survey Officer.

#### (17) Exhibition.

91. As usual the exhibits relating to Marwar Industry and agriculture were well arranged for show and instruction at:-

- (a) the site of and during the grand Chaitri cattle fair held every year near Tilwara village along the bank of Luni river for a fortnight in charge of a special Committee under the Presidentship of Maharaj Shri Zalim Singhji. The concerned public were much benefitted.
- (b) the Imperial Forest Research Institute Dehra Dun and Commercial Museum Calcutta, where the samples and exhibits of Marwar arts and industrial products were contributed. There, special separate stalls and show cases were allotted to Marwar province and they were much appreciated and advertised in their respective monthly publications and magazines, (vide copies of extracts attached in Appendix B.)  
B B. Osmaston Esq. F. C. H., M. B. O. U, C. I. E.  
President, Forest Research Institute and College Dehra Dun,

in his letter No. 2712 dated 13-11-16 to the Superintendent of Forests Marwar, says ".....express my thanks for the very interesting collection of Marwar minerals and other industrial products which you have been good enough to collect for this Institute. I hope you will convey my best thanks to the Durbar for the same. The collection will constitute a valuable addition to our Museum....."

(c) Some other dealers and centres of business who were also supplied with sundry samples and exhibits of Marwar arts and industrial products.

(d) Messrs. Lidley, Aston, and Pilley of London, England who on receiving our Bagri lacquerware, in their letter dated 11th. May 1917, specially remarked ".....we are very pleased with the ware and feel sure we can do some business in it. The candle-sticks are especially attractive and ....."

If the enterprise be carried out on a large scale with the same spirit, energy and activity, the future prosperity of these concerns is anticipated to be promising.

#### (h) Cattle Pound Supervision.

The cattle pounds at Jodhpur, Khundal, Sewari, Bawal, Bidiad, Bagol, Sadri, Saran, Jojavar, Kharchi, Balotra, Chitrori, Nana and Chandawal remained under the supervision of the Department. The table below shows the number of cattle impounded and released the revenue derived and the expenditure incurred from November to August.

No.	Names of cattle pound.				Impo- -unded	Re'e -used	Revenue realised	Expenditure incurred
							Rs. as. p.	Rs. as. p.
1	Jodhpur	...	...	...	967	973	942 9 0	363 10 6
2	Kundal	..	...	...	155	155	25 8 0	14 11 0
3	Sewari	...	...	...	138	138	99 9 0	37 7 6
4	Bawal	...	...	...	857	855	276 9 3	24 1 3
5	Bidiad	...	...	...	54	54	18 14 0	.....
6	Bagol	...	...	...	143	139	83 11 0	.....
7	Sadri	...	...	...	303	303	290 1 6	96 5 0
8	Saran	...	...	...	254	254	105 7 0	49 12 0
9	Jojavar	...	...	...	103	108	19 6 0	.....
10	M. Junction.	...	...	...	172	172	70 8 6	48 11 6
11	Balotra	...	...	...	367	365	360 11 0	26 7 0
12	Ohitrori	...	...	...	6	6	16 2 0	2 0 0
13	Nana	...	...	...	202	201	30 3 6	0 4 0
14	Chandawal	...	...	...	267	267	51 1 0	.....
TOTAL					3,094	3,991	2,390 4 9	673 5 9

## APPENDIX A.

REPORT OF SAM HIGGINBOTTAM, Esqr., AGRICULTURAL ADVISER,

JODHPUR STATE.

*August, 24-31,—1915.*

My visit to Jodhpur comes at a time when the country is not in a normal condition. There is the lowest recorded rainfall this year of any year. This follows several poor years, so things are about as bad as they can well be. The State is large and in the time at my disposal, I have not been able to see all parts of it, what I have seen, however, is encouraging to the agriculturist. I have not seen any trees dead from lack of moisture. Granting that the trees are of especial draught resisting varieties, this is still very remarkable. Also the hardier jungle grasses and weeds are still green, also a lot of Bajra will survive and give a crop if rain should fall within the next week. This all indicates a lot of soil moisture. Study and experiment by capable, trained men would show how this could be used for growing crops there are different types of soil in the State with differing water-holding and retaining capacities. These could be tested and systems worked out for them. Also I consider very encouraging beginnings have already been made by the gardens and nurseries under the Revenue Member and the Engineer. I believe the State could make much progress if a water survey were made. I consider one deep well boring out-fit good for two or three thousand feet, also another good for depths up to five hundred feet, by making test boring all over the State would give a valuable body of information which would save a lot of time and money in getting agricultural improvements under way. For model farms could be started where there was sufficient water. I think this survey should come before any expensive schemes are started. A system of underground irrigation could be worked out for the State which would save ninety per cent of the water used, or to put it another way would allow a ten-fold increase of wet land or land under irrigation. A proper system of wells would be more sure than tank increase, for in the worst times tanks dry up, while with the wells bored deeply a regular unfailing supply of water is assured.

Then I believe a fully qualified staff of Agriculturists could soon have sufficient experience to advise and train the farmers of the State and increase the revenue very greatly.

I believe to plant long rows of trees at right angles to the prevailing wind, as wind-breaks, would prevent a lot of sand covering good land. The trees would have to be protected for the first few years. After that they would be valuable for wind-breaks and fuel supplies, thus allowing the manure to be used for field work. The leaves, pods and fruit would always have a value and in years like this would enable the people to tide over.

The State agriculturist staff could also work out the problem of reserves of fodder, in some districts Silos would be necessary, in others



stacks would work well. Some fodder is necessary every year to tide over the dry time. Owing to lack of reserve fodder to help out the grazing much retardation of growth in young animals and loss of weight in older animals is bound to occur and this means a loss of money. So reserves of fodder would be a form of cattle insurance that would pay well.

The animal husbandry of the State seems the most promising field for immediate endeavour. For by growing feed for animals and feeding it to the animals in the State the fertility of the soil is maintained; whereas the export of grain, oil-seeds, bones and fodder of all kinds causes a loss of fertility. By laying great emphasis on animal husbandry the fertility and productivity of the soil can be greatly increased.

The breeds of animals already within the State show that the soil, feed, climatic and other conditions are well-suited to the production of animals of high money value.

A stud-farm, a cattle breeding farm, a special flock of sheep, a camel stud under the direction of an expert, frequent shows at which good prizes would be offered would all help very much. The natural bent of the farmers is also toward producing good live-stock.

An adequate agricultural staff with proper equipment would cost money. But money so spent is well invested and will bring a large return after a few years. So little is known of the possibilities of the soils of Jodhpur that for several years there might not be much visible return as most of the effort would be put forth in experiment and investigations.

My recommendations are:-

1. Have a water survey made of the whole State, and work out a scheme of underground irrigation.
2. Appoint an agricultural staff get the best men regardless for they are the cheapest in the long run.

Each of the domestic animals- the horse, the cow the camel the sheep, the goat, in a State as large as Jodhpur is worth a good man who understands the principles of breeding.

3. Have model or demonstration or training farms and seed and stud-farms for special purposes in the various parts of the State. At these various farms a few bright, industrious boys might be taken and trained for the service of the State and often these boys are ready and at work, progress in agricultural matters would go by leaps and bounds all over the State.
4. Increase the Forestry staff so that the State may more rapidly be afforested.
5. Have reserves of fodder either stacks of hay or silos all over State at central and approximate points.
6. Do not begin any elaborate or expensive schemes until thorough investigation has been made as to their profitableness.
7. Regard the agricultural expenditure as an investment. Ten years of continuous, progressive, liberal and persevering effort should more than double the agricultural revenue and would indirectly benefit the Railways and every other State Industry.

## APPENDIX B.

### JODHPUR PRODUCTS.

*By S. N. Chat. erji, Librarian and Museum Assistant, Forest Research Institute Dehradun. U. P.*

The Marwar Durbar have presented the Forest Research Institute with an interesting collection of samples of Economic and Industrial products of the State.

These consist of about 50 specimens of manufactured articles of different kinds of woods and minor forest produce and some 85 samples of minerals. The more important of these specimens are briefly described below:-

#### A.—Forest Products.

##### 1. WOODWORK.

###### 1. *Boswellia serrata* (Saler).

The Superintendent of Forest, Mr. Chatar Bhuj, states that the wood of this tree has hitherto been much neglected. A paper-rack made of this species displays the utility of wood in cabinet work. It takes a fine polish on a dark brown surface. The Superintendent draws the attention of Forest Officers to the possible uses of the wood.

###### 2. *Odina wodier* (Gol)

The timber of this tree has also been much neglected. The Marwar Timber Factory use it now in carving work. An ornamental presentation casket made of this wood, with the name of the Forest Research Institute inscribed upon it, by inlayings of *wrightia tinctoria* and *Diospyros Melanoxylon* shows off the wood to advantage.

###### 3. *Tecoma undulata* (Rohira)

A water basin and jug, a cup and the idols of Gauri and Ishwara (the Hindu god and goddess of prosperity) are the principal exhibits made of this wood. None of them show signs of warping or cracking. The timber, therefore, appears to deserve the name of "Marwar teak" given to it by the Superintendent of Forests.

###### 4. *Wrightia tinctoria* (Khirni)

The most interesting articles made of this wood are a tea-set, a mounted cup, the figure of a lion, and a stationery rack with penholders. These holders compare favourably with the Bavarian type. The retail prices are very moderate.

#### II Lacquer work.

The centre of this industry is at Bigli. It is not an altogether new industry, but has been developed only recently. Toys, chessmen, a collar box, a tobacco jar, and mirror stands are among the exhibits.

The chief woods used in the lacquer work are *Crataeva religiosa*, *Tecoma undulata*, *wrightia tinctoria* and *Zizyphus* sp.

### III.—IVORY WORK.

A factory has been started at Merta and appears to be doing well. Several articles including an imitation rose, a bracelet, a pearl case, walking stick and a penholder are shown. All show very fair workmanship.

Articles are also manufactured from Khas-Khas grass at Merta.

### IV. Rocks and minerals.

A valuable collection of rocks and minerals found in Marwar constitutes not the least interesting portion of the exhibits.

It includes the following:-

- (1) Specimens of marbles of various colours and qualities.
- (2) Wolfram.
- (3) Cobaltiferous manganese are containing also copper and nickel in appreciable quantities.
- (4) Graphite, impure.
- (5) Asbestos. This is being worked experimentally.
- (6) Chalcedony.
- (7) Felspar (pink).
- (8) Soapstone.
- (9) Mica, of three kinds
- (10) Calcite.
- (11) Gypsum, an excellent cementin material.
- (12) Selenite.
- (13) Limestone.
- (14) Fuller's earth.
- (15) Common salt.

The preparation of the last named substance, obtained mainly from the Sambhar Lake, constitutes the chief and most important industry of the State.

In addition to the above, saltpetre, carbonate of soda, kaolin and yellow ochre occur to a limited extent.

The Superintendent of Forests, Jodhpur, has intimated his willingness to reply to any enquiries relating to any of the above products.\*

\*It is hoped that the example of this progressive and enlightened State will be followed by others who must be equally anxious to find markets for their indigenous products and to develop local industries.—(Hon. Editor.)

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## **Appendix.**

# Annual No. 46

Forest Department, Malwar State. Area of Forests for the year 1916-17.

Name of Division.	Name of Range.	Name of Pargana.	Name of forest	Area protected forest.		Area dis- forested this year.	Net Area.		Order Number.	Remarks.
				Acrea	Miles.		Acrea.	miles		
EASTERN DIVISION.	<b>Khalsal Reserved Forests.</b>									
	Godhwar	Bali & Desuri	Nann to Bagol	1,24,230	191.11	..	1,24,230	194.11	...	
	Sojat	Desuri & S. jat Jaitaran	Kot to Depriwar	42,082	65.75	..	42,085	65.75	...	
	Parbatsar	Parbatsar	Pi to Bidyal	7,360	11.50	..	7,360	11.50	...	
	Jaitaran	Jaitaran & Merta Sec.	Bar 1/2	210	.37	..	210	.37	...	
	Jaipur	Jaitaran	Bar to Somel	4,080	6.37	..	4,080	6.37	...	
	Ghanerno	Desuri	Kalab to Giri	8,320	13.0	..	8,320	13.0	...	
			Ghanerno	3,277	5.12	..	3,277	5.12	...	
			Total Reserved Forests	1,80,589	296.22	..	1,80,589	296.22	...	

EASTERN N. (Division)					
	Sojat ...	Sojat ...	Khalasa	Unclassed Forests	
Pali ...	...	...	Hemliwans ...	60.0	60.0
		Sojat ...	Barsan ...	40.0	40.0
			Udesi Kua ...	531.0	531.6
			Deoli Mardawa ...	560.8	560.0
Pali ...	...	Pali ...	Paliyor ...	2560	2560
			Rambholai ...	720.0	720.0
			Sampa ...	217.0	217.6
			Sowania ...	174.8	174.8
			Khamal ...	118.0	118.0
			Sadawas ...	31.5	31.5
			Bomadra ...	185.7	185.7
			Miniari ...	521.1	521.1
			Bala ...	454.4	454.4
			Nayagaon ...	40.0	40
Total Unclassed Forest			.....	9.71	9.71
Total Eastern Division			.....	305.93	305.93







# Annual Form No. 46

Forest Department, Marwar State, Area of Forests for the year 1916—17

Name of Division.	Name of Range.	Name of Pargana.	Name of Forest.	Area Protected Forest		Area protected during this year	Area dis-forested this year.	Net Area		Order number.	Remarks.
				Acres.	Miles.			Acres.	Miles		
WESTERN DIVISION	Jalore	...	<b>Jagir.</b>								
	...	Jalore	Gangapura to Roja	640	1.0	...	...	640	1.0	...	
	Siwana	Siwana to Pachpadra	Bhagli	40	.06	...	...	40	.06	...	
			<b>Khalsa</b>								
			Asotra	146		...	...	146		...	
			Kho kharlai	44	.52	...	...	44	.52	...	
			Siwana Khas.	144		...	...	144		...	
	Siwana	Siwana to Pachpadra	<b>Jagir.</b>								
	...		Hinglaj	1,307		...	...	1,306		...	
			Kuip	990	9.94	...	...	990	9.94	...	
			Thapan to Alana	4,066		...	...	4,066		...	
			Luni to Badmer line F. F. R.	5,312	8.30	...	...	5,312	8.30	...	
			Total Unclassed Forest.	12,939	20.21	...	...	12,939	1.0	...	
			Total Western Division.	82,927	120.54	...	...	82,927	.06	...	

DIRECTION DIVISION.									
Jodhpur	...	Jodhpur	.....	Reserved Forests.	...	...	...	...	...
Do ...	...	Do ...	...	Unclassed Forests.	...	...	...	...	...
		Jodhpur	...	7,273	11.37	...	7,273	11.37	...
		Gadhabishnoyan	...	400	.02	...	400	.62	...
		Total Direction Division		7,673	11.99	...	7,673	11.99	...
		Grand Total		259,577	405.55	...	259,577	405.55	...
		Reserved Forest	...						
		Unclassed Forest	..	26,8,208	41.91	...	26,8,265	41.91	...
		Grand Total		280,4,038	417.46	...	2,80,4,038	417.46	...
		Grand Total		280,4,038	417.46	...	2,80,4,038	417.46	...

# Annual Form No. 52.

Forest Department Marwar State Register of Breaches of Forest Rules during the year 1916-17.

Forest Range and (Civil Pargana.	(Cases Pending from 1915-16.	NEW CASES OF THE YEAR.					Total new cases during the year.	Total cases.	DEPOSED OF DURING THE YEAR.					Cases pending on 1st October 1917.	REMARKS.
		Injury to Forest by fire.	Unauthorized felling or acquisition of wood and minor proceeds.	Grazing without permission.	Other offences.	Persons.			Persons.	Persons.	Persons.	Persons.	Persons.		
<i>A.—Cases tried by Magistrates.</i>															
Bali	3	..	..	..	2	2	2	3	3	3	3	3	3	3	
Jalore	..	..	..	1	..	1	1	3	3	3	3	3	3	3	
Jaswantpura	3	..	..	..	..	..	..	3	3	3	3	3	3	3	
Jetaran (Railpur)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Total	6	..	..	1	2	3	9	9	9	9	9	9	9	9	
<i>B.—Cases compounded by Forest officials</i>															
Bali	..	..	12	20	38	80	80	79	103	79	103	79	103	103	
Desnri	..	..	50	43	8	101	101	101	113	101	113	101	113	113	
S. jat	..	..	13	10	10	33	33	33	71	33	71	33	74	74	
Depotrange	..	..	4	4	..	8	8	8	8	8	8	8	8	8	
Pali	..	..	..	13	..	13	13	13	13	13	13	13	13	13	
Lohi Barmer Line	..	..	4	6	..	10	10	10	10	10	10	10	10	10	
Parbatsar	..	1	3	37	3	44	44	44	65	44	65	44	65	65	
Jatara	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Sewana	..	..	39	96	21	156	156	156	156	156	156	156	156	156	
Jalore	..	..	70	14	21	105	105	105	105	105	105	105	105	105	
Jaswantpura	3	..	3	12	2	17	20	16	21	16	21	16	21	21	
Jodhpur	..	..	2	13	1	16	16	16	20	16	20	16	20	20	
Total Khalsu	3	1	200	278	104	583	586	581	688	581	688	581	688	688	
Raipur	..	..	5	3	1	9	9	9	16	9	16	9	16	16	
Ghuernao	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Jetaran	..	..	4	..	..	4	4	4	4	4	4	4	4	4	
Total Jajiri	..	..	9	3	1	13	13	13	20	13	20	13	20	20	
Total Cases compounded	3	1	209	281	105	599	599	591	708	591	708	591	708	708	

## Annual Form No. 53

Forest Department Survey Sheet Area of Forest tracts protected from fire 1916-17.

Range.	Forest tracts.	Year in which protection commenced.	Area actually protected during the last dry year.	Area attempted to be protected.	Failures.	Area actually protected during the year.	Rs.	A. P.	Remarks.
Bali	Bali	1891	1,65,112	1,60,412	.....	1,66,412	86	0 0	
Desnri	Desnri	1891					36	0 0	
Sojat	Sojat	1891					94	0 0	
Siwana	Piploon, Sela, and Gudhanal	1898	2,957	2,957	.....	2,957	...	...	
Jalore	Jalore and Aichraha	1898	8,832	8,832	.....	8,832	...	...	
Jaswantpura	Jaswantpura, Soonda & Dorra block	1898	8,086	8,086	.....	8,086	...	...	
	Total Jagir		1,94,987	1,36,287	.....	1,86,287	216	0 0	
Ghanerao	Ghanerao	1895	3,277	3,277	.....	3,277	...	...	
Parbatsar	Pi, Basi, Banwal, Mayapur Kal-yatra and Bidia	1897	7,360	7,360	.....	7,360	...	...	
Barpur	Kalib to Giri	1894	8,320	8,320	.....	8,320	...	...	
Jaitaran	Bar, Barantia, Babra and Semal	1896	4,080	4,080	.....	4,080	...	...	
Siwana	Makalsar, Ramania, Mewri, Gungrot, Sener, Golia, Kundal, Telwara and Bhugwan	1908	22,960	22,960	.....	22,960	...	...	
Jalore	Aichraha and Rajha...	1909	7,168	7,168	.....	7,168	...	...	
Jaswantpura	Soonda and Dorra	1909	19,885	19,885	.....	19,885	...	...	
	Total		73,050	73,050	.....	73,050	...	...	
	Grand Total		2,58,037	2,59,337	.....	2,59,337	2'6	0 0	

# Annual Form No. 57.

Forest Department Marwar State. Outturn in cubic feet of Timber and Fuel for the year 1916-17.

Range.	TIMBER IN ROUGH LOGS.					TIMBER IN ROUGH POLDS.					SAWN OR SQUARED TIMBER.					MISCELLANEOUS.					FUEL.					Grand Total.	Byways.	
	Raj Agency.	Purchasers.	Free Grants.	Right-holders.	Total.	Raj Agency.	Purchasers.	Free Grants.	Right-holders.	Total.	Raj Agency.	Purchasers.	Free Grants.	Right-holders.	Total.	Raj Agency.	Purchasers.	Free Grants.	Right-holders.	Total.	Raj Agency.	Purchasers.	Free Grants.	Right-holders.	Total.			
Bali	1,223	20	...	216	1,649	912	1,308	...	1,33	1	132	90	...	6	4,768	...	361	...	3,862	4,216	18,187	76,217	...	...	23,340	1,17,744	21,950	
Desuri	168	128	...	2,140	2,436	3,246	204	...	...	6	135	...	...	4	151	295	326	...	1,1	31	2,000	22,752	...	...	22,288	47,583	58,137	
Sofat	188	136	...	1,124	1,418	4,654	1,150	...	2	7,940	170	...	...	23	15	285	643	...	1,1	...	11,71	11,557	...	...	200	53,608	65,657	
Siwana	...	...	...	...	...	5	86	...	26	117	13	...	...	1	35	105	378	...	17	...	...	2,370	...	...	...	3,273	3,945	
Jalore	...	...	...	...	...	25	5	...	36	87	15	...	...	8	42	55	17	...	201	...	1,000	6,763	...	60	7,823	8,226		
Jaavantpura	37	413	...	...	150	92	371	...	925	1,394	4	...	...	...	4	...	1	...	34	...	...	3,171	...	300	4,468	6,051		
Parbatar	...	...	...	...	...	...	136	...	...	130	...	...	...	...	...	...	288	...	...	...	...	1,199	...	...	...	1,199	1,626	
Jelaran	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	10	...	...	10	...	...	...	...	...	...	10	
Total Raj Dept	1,586	586	...	3,18	5,652	8,933	3,263	...	7,805	20,0	1,840	...	...	3,258	5,232	651	2,034	...	6,690	9,972	...	1,1,076	...	...	46,168	2,85,698	2,75,998	
Rajpur Jagir	...	30	...	50	...	...	266	...	200	...	...	...	...	253	254	...	306	...	452	758	...	6,877	...	...	3,500	1,15,756	17,633	
Ghanerao Jagir	...	39	...	96	135	...	458	52	318	828	...	54	1	67	122	...	228	...	503	1,181	...	3,180	...	...	3,200	6,380	8,596	
Jalore	...	...	...	...	...	...	...	165	...	165	...	...	157	181	338	...	...	8	...	...	...	...	...	716	716	1,227		
Jaavantpura	...	...	...	...	...	...	1	...	171	172	...	...	...	...	...	...	7	...	2	9	...	60	...	...	...	60	245	
Jelaran	...	...	...	...	...	...	1	...	...	12	...	...	...	...	...	...	23	...	53	59	...	1,696	...	...	...	1,696	1,767	
Total Jagir Forests	...	69	...	616	715	...	737	217	689	1,613	...	59	158	501	718	...	544	8	1,393	1,505	...	11,813	...	...	7,416	20,427	25,468	
GRAND TOTAL	1,586	655	...	4,126	6,367	8,963	4,000	217	8,494	21,671	1,810	108	158	3,769	5,950	651	2,598	8	19,083	11,340	...	35,888	...	...	53,604	2,56,125	3,01,456	

APPEDICE LVIII.

# Annual Form No. 58.

Outturn of Minor produce for year 1916-17.

Range.	Description.	RAJ AGENCY.		PUR-CHASIS.		FREE GRANTS.		RIGHT HOLDERS.				TOTAL.		REMARKS.	
		Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	FREE GRANTS.		TOTAL.		Quantity.	Value.		
								Quantity.	Value.	Quantity.	Value.				
	Bamboos	3,054	149	7,502	241	...	...	3,700	91	...	...	3,700	91	484	
	Grazing	...	...	1,660	1,040	...	...	5,293	941	13,643	7,618	18,936	8,559	9,599	
	Grass mounds...	255	...	90	...	...	...	...	...	...	...	...	...	90	
	" cart loads	...	...	122	68	898	446	...	...	...	...	...	...	514	
	" (Head loads)	...	...	89	3	22	1	27	...	...	...	27	...	4	
	Honey and Wax (contract)	...	...	...	530	...	...	...	...	...	...	...	...	530	
	Hides (contract)	...	...	...	1,040	...	...	...	...	...	...	...	...	1,040	
	Pala (carts)	...	...	3	2	...	...	...	...	...	...	...	...	2	
	" (Head loads)	...	...	6	1	...	...	...	...	...	...	...	...	1	
	Palas (Head loads)	...	...	25	1	...	...	...	...	...	...	...	...	1	
	Juyali Do	...	...	8	...	...	...	...	...	...	...	...	...	...	
	Thorns (Cart loads)	...	...	7	2	...	...	...	...	...	...	...	...	...	
	Mahorn (Fruits)	...	...	...	11	...	...	...	...	...	...	...	...	11	
	Fibrn Leaf	...	...	...	25	...	...	...	...	...	...	...	...	25	
	Stone (Cart loads)	...	...	16	3	...	...	...	...	...	...	...	...	3	
	" (Mines contract)	...	...	...	75	...	...	...	...	...	...	...	...	75	
	Melhiya (Head loads)	...	...	470	30	...	...	771	27	...	...	771	27	57	
	Kohisa oil	...	...	...	...	...	...	...	...	...	...	...	...	3	
	Vegetables	...	...	...	...	...	...	...	...	...	...	...	...	11	
	Miscellaneous	...	...	...	...	...	...	...	...	...	...	...	...	7	
	Total Bali	...	260	...	3,075	...	417	...	1,059	...	7,618	...	8,677	12,459	

<i>Desuri Range.</i>											
Bamboos	4,793	275	4,518	189	...	...	...	...	...	...	464
Grass (Head loads)	11	8	...	...	...	...	...	...	...	...	8
Do. (Head load)	...	...	216	3	...	...	...	...	...	...	14
Grazing cattle	...	...	1,962	1,020	...	...	...	...	...	...	1,465
Stone (Cart load)	...	...	13	3	...	...	...	...	...	...	3
Do. (Head Do.)	...	...	2	...	...	...	...	...	...	...	...
Do. (contract)	...	...	48	52	...	...	...	...	...	...	52
Pala (Head loads)	...	...	19	3	...	...	...	...	...	...	2
" (Cart " )	...	...	21	14	...	...	...	...	...	...	14
Thorns (Cart load)	...	...	315	20	...	...	...	...	...	...	5
Mohiya grass (Head load)	...	...	...	2	...	...	...	...	...	...	20
Mahura fruits	...	...	12	29	...	...	...	...	...	...	2
Hides (No)	...	...	...	199	...	...	...	...	...	...	29
Do. (contract)	...	...	...	6	...	...	...	...	...	...	199
Miscellaneous	...	...	...	...	...	...	...	...	...	...	6
Total Desuri	283	543	...	1,541	...	...	445	...	...	...	2,283
" Range	...	...	...	4619	...	...	1,504	...	...	...	14,742
<i>Sofat Range.</i>											
Bamboos	174	8	127	5	...	...	...	...	...	...	13
Grass (Head load)	...	...	15	1	...	...	...	...	...	...	23
Grazing cattle	...	...	101	58	...	...	...	...	...	...	665
Honey Hides (contract)	...	...	...	239	...	...	...	...	...	...	259
Pala (Cart load)	...	...	7	5	...	...	...	...	...	...	5
Do. (Head load)	...	...	36	3	...	...	...	...	...	...	5
Stone (Cart load)	...	...	23	6	...	...	...	...	...	...	6
Gum fruits and (Leaves)	...	...	...	115	...	...	...	...	...	...	115
Onion and rye	...	16	...	...	...	...	...	...	...	...	16
Gunda	...	26	...	...	...	...	...	...	...	...	26
Miscellaneous	...	...	...	5	...	...	...	...	...	...	5
Total Sofat Range	50	50	...	459	...	...	607	...	...	...	1,138
<i>Sirana.</i>											
Bamboos	522	49	4	...	...	...	...	...	...	...	49
Grass	4	4	106	8	...	...	...	...	...	...	65
Bore (Fruit) head loads	...	...	120	5	...	...	...	...	...	...	5
Pala (Head load)	...	...	42	4	...	...	...	...	...	...	4
Thorns (Cart load)	...	...	22	3	...	...	...	...	...	...	3



# Annual Form No. 53.

Outturn of Minor produce for year 1916-17.

Range.	Description.	RAJ AGENCY		PURCHASES.		FREE GRANTS.		RIGHT HOLDERS.						TOTAL.		REMARKS.
		Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	AT REDUCED RATES.		FREE.		TOTAL.		Quantity.	Value.	
								Quantity.	Value.	Quantity.	Value.	Quantity.	Value.			
	Stone (Cart loads)	.....	..	163	10	.....	..	.....	..	.....	..	.....	..	163	10	
	Do. Ass. Do.	.....	..	884	14	.....	..	.....	..	.....	..	.....	..	884	14	
	Do. (Contract)	.....	..	872	106	.....	..	.....	..	.....	..	.....	..	872	106	
	Hides	.....	..	..	6	.....	..	.....	..	.....	..	.....	..	.....	6	
	Grazing (cattle)	.....	..	72	27	.....	..	893	58	.....	..	893	58	.....	85	
	Total Sirana	.....	53	..	183	.....	..	.....	58	.....	..	.....	53	.....	347	
	Total Range	.....	646	..	5,261	.....	447	.....	2,169	.....	..	.....	7,701	.....	16,227	
	Grass contract and (cart load)	.....	..	..	552	.....	..	.....	..	.....	..	.....	..	.....	552	
	Do. (Head load)	.....	..	215	17	.....	..	.....	..	.....	..	.....	..	215	17	
	Grazing	.....	..	350	22	.....	..	.....	..	.....	..	.....	..	350	22	
	Stone (contract)...	.....	..	..	48	.....	..	.....	..	.....	..	.....	..	..	48	
	Pala and Kunut	.....	..	..	2	.....	..	.....	..	.....	..	.....	..	..	2	
	Miscellaneous	.....	..	..	2	.....	..	.....	..	.....	..	.....	..	..	2	
	Total Jalore	.....	..	..	643	.....	..	.....	..	.....	..	.....	..	..	643	
	Bamboos	2,307	24	4,924	142	.....	..	.....	..	.....	..	.....	..	7,291	166	
	Grass (Head load)	.....	..	232	2	.....	..	.....	..	.....	..	.....	..	232	2	
	Do. cart load	.....	..	119	54	.....	..	.....	..	.....	..	.....	..	119	54	
	Grazing	.....	..	..	..	.....	..	1,743	240	.....	..	1,713	210	1,743	240	







## Annual Form No 59.

Forest Department, Marwar State, Account of timber and other produce cut or collected by Raj Agency and brought to Sale Depot or sold locally during the year 1916-17.

Particulars.	No. or quantity.	Cubic feet.	TOTAL OF EACH HEAD		Particulars.	No. or quantity.	Cubic feet.	TOTAL OF EACH HEAD		REMARKS.
			No. or quantity.	Cubic feet.				No. or quantity.	Cubic feet.	
Balance at commencement of the year:—					(1) TRUE DISTANCE PURCHASED FROM DAPORA.					
BALI RANGE.					Bali Range.					
Desuri ...	5,149				Los Choket ...	2,175				
Sojat ...	2,907				Upla ...	2,280				
DEROR RANGE.	20,816				Kauli ...	2,031				
Siwana ...	227				Kasi Danda ...	86				
Jalore ...	2,191				Golia ...	2,279				
Jaavantpura ...	3,359				Dhancha camel ...	11,616				
Jodhpur ...	1,424				Dugar Kher ...	4				
Pali ...	4,216				Danda ...	28				
Barmer Line	2,003				Th blt ...	7,734				
	4,326				Pat ...	1,433				
True Receipts					Paga ...	213				
Bali Range.					Moyal ...	72				
Los Choket	2,269				Musal ...	187				
Gole ...	2,307				Singri Kher ...	204				
Upla ...	2,265				Dhan ...	17				
Latha upla	66				Salar-i-bekar ...	89				
Kani	122				Hat Dhan ...	1				
Kumal wood	45				Hat Saras ...	504				
Kasi Danda	2,323				Pitha Kher ...	101				
Khiraj wood	24				Paga Kher and Dhan ..	96				
Golia	12,894					374				

[illegible]

## Annual Form No. 59.

*Forest Department Marwar State, Account of timber and other produce cut or collected by Raj Agency and brought to Sale Depot or sold locally during the year 1916-17.*

Particulars.	No. or quantity.	Cubic feet.	TOTAL OF EACH HEAD		REMARKS.
			No or quantity.	Cubic feet.	
<i>Sojat Range.—</i>					
Ins Dhan ...	389				
'Upla ...	398				
Kasi Danda ...	2,984				
Golia Dhan ...	6,837				
Kana Do ...	46				
Dingar Dhan ...	5,088				
Do Khar ...	3,162				
Danda Dhan ...	8,110				
Bevala Do ...	237				
Musal Khar ...	59				
Thobli Dhan ...	63				
Paga Jinti ..	25				
Pud Dhan ...	132				
Khirmi ...	195				
Mayal ...	7				
Barsot Choklat	2				
Belawan ...	2				
Gangra n Kana	152				
Do Kamri ...	9				
Adbali ...	1				
Firanjau (Hd Road)	14				
<i>Depot Jat—</i>					
Kani ...	41				
Kasi Danda ...	169				
Kaware Do ...	20				
Khirmi wood	1				
Golia Dhan ...	2,250				
Dingar Dhan ...	2,184				
Do Khar ...	254				
Chokni Danda	79				
Thobli Dhan ...	68				
Paga ...	38				
Bevala ...	32				
Danda Dhan ...	517				
Musal Khar ...	43				
Mayal ...	2				
			38,107	7 Mds.	

Gole Bund ...	10
Fatia Salar ..	6
Kumat wood ..	47
<b>DEPOR JAT—</b>	
Danda ...	118
Mual Khar ...	1
Meyal ...	2
Latha upla ...	3
Kana ...	21
Kumat wood "	5
Sivana Range.—	
Pia Dhaui ..	14
Golia ...	26
Jawa Bor ...	2
Upla ...	154
Kasi Danda ..	833
Nimb wool ...	1
Chokni Kana ..	35
Tinchiya ...	30
Mekha ...	200
Gangaru ...	107
Bevala ...	25
Jodhpur Range.—	
Khejarn wood ..	4
Babul wood ..	1
Tinchiya ...	29
Danda ...	93
Jaswantpura —	
Adhari ...	54
Salur Thakar ..	2
Danda Dhau ..	582

  

Singri ...	37
Hai Dhau ...	39
Do Saras ...	19
Insa Dhau... ..	373
Upla ...	364
Latha Do ...	69
Do Gole ...	23
Pida ...	148
Gole Band ...	2
Latha Ins ...	95
Sivana Range.—	
Pida Dhau ..	13
Golia ...	836
Ins Bore ...	198
Upla ...	972
Kasi Danda ..	737
Chokni Kana ..	23
Gangan ...	82
Bevala ...	4
Latha Ins ...	91
" Upla ...	15
Singri Khar ...	1
Hai Dhau & Saras	36
Thobli ...	30
Jodhpur Range —	
Bala Dhau ..	730
Thobli ...	48
Sliper ...	861
Kariya ...	84
Samble (Nimous) wood	27
B u i n wood	25
Bank Pagi ..	107
Babul wood ..	1
Kamat wood ..	95
Tinchiya ...	20
- Tinchiya ...	12
Salur (Tree)	16
Gole "	2
Latha Roha ..	14
Khirmi ...	479
Golia ...	

  

7 md.	37,973	150	1,427	127
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6,397	2,483
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# Annual Form No. 59.

Forest Department Marwar State. Account of timber and other produce cut or collected by Raj Agency and brought to sale Depot or sold locally during the year 1916-17.

Particulars.	No. or quantity.	Cubic feet.	TOTAL OF EACH HEAD.		Particulars.	No. or quantity.	Cubic feet.	TOTAL OF EACH HEAD.		REMARKS.
			No. or quantity.	Cubic feet.				No. or quantity.	Cubic feet.	
Hal Dhan ...	42				Dingar Dhan	390				
Gola ...	48				" Khar	170				
Adan ...	4				Kari Danda	31				
Ins Latha ...	108				Latha Upla	1				
" Dhan ...	136				Salya ...	103				
Pagi Bor	14				Kawari Danda	13				
Jalore P'angga —			990		Chukni "	56				
Salar Phakar	21				Hal	1				
Upla Gol ...	10				Bevala	3				
Kasi Danda	287				Upla	13				
			313		Ins	17				
Total true receipt			89,848		Odann	76				
					Latha Ins	2				
			89,848					3,397		
Cross Receipts				89,848	J. SWANTPURA.—					
Fojat ...	7			7 md.	Adhan	17				
Depot Jab ...	16,416				Singri Dhan	22				
Sivana ...	2,492				Ins Latha...	17				
Jodhpur ...	2,836				Salar Thakar	2				
Barn r Line &c	1,032				Ins Dhan ...	56				
Total Gross Receipts				22,918	Danda Dhan	238				
GRAND TOTAL				1,65,529	Paga	2				
				7 Mds.	Hal Dhan ...	1				
					Mayal Do ...	4				
					Upla Bore	2				

Musal Khar	...	1		
Kani Dhan	...	1		
Pagi Bore ...	...	12		
Thobli Dhan	...	6		
Golia ...	...	9		
<i>Jalore Range—</i>				
Fida Dhan	...	61		395
Kasi Danda	...	520		
Bevala ...	...	3		
Gundi-Ka-Takra	...	9		593
Barmer Line	...			
(Balotra and Fair)	...			
Hal Dhan ...	...	2		
Do Saras ...	...	12		
Singri Dhan	...	1		
Do Khar ...	...	3		
Ins chapti	...	17		
Thobli ...	...	92		
Ins Latha ...	...	24		
Upla chopta	...	65		
Golia ...	...	149		
Kasi Danda	...	145		
Bevala ...	...	10		
Chokmi Kana	...	178		
Gangan Chitia	...	2		
Upla Latha	...	31		
Musal Khar	...	5		
Salar Thekur	...	1		
Total True Disposol	...			742
Utilised by department				93,474
<i>Bali Range—</i>				7 mds.
Ins Chokat	...	6		
" Latha...	...	4		
Upla	...	4		
Gola tree ...	...	1		
Page - ...	...	8		

## Annual Form No. 59.

\* Forest Department Marwar State. Account of timber and other produce cut or collected by Raj Agency and brought to Sale Depot or sold locally during the year 1916-17.

Particulars.	No. or quantity.	Cubic feet.	TOTAL OF EACH HEAD.		Particulars.	No. or quantity.	Cubic feet.	TOTAL OF EACH HEAD.		REMARKS.
			No. or quantity.	Cubic feet.				No. or quantity.	Cubic feet.	
Bark	42				...					
Bark	1				...					
Mekha	31				...					
Thobli	3				...					
Danda	13				...			120		
<i>Desuri Range—</i>										
In Choket	20				...					
" Latha	2				...					
Upla	9				...					
Kani	2				...					
Golia	8				...					
Danda	232				...					
Diogarkhar	21				...					
Thobli	6				...					
Paga Bor	11				...					
Mayal	2				...					
Manal	1				...					
Salar Thakur	1				...					
Singri	25				...			340		
<i>Sojat Range.—</i>										
In Dhan	24				...					
Upla Do	28				...					
Kani Danda	13				...					
Golia Dhan	13				...					
Kani Do	14				...					

Dingar Do	...	50		
Do Khar ...	...	215		
Danda Dhan	...	59		
Thobli ...	...	414		
Paga ...	...	14		
Pida Dhan	...	4		
Musal ...	...	4		
Mayal Dhan	...	6		
Bank ...	...	6		
Pagi ...	...	28		
Barsot Chokkat	...	14		
Gole ...	...	2		
Bevala ...	...	6		
Firangan Hd. Id.	...	1		
Dhancha (Camel)	...	5		
	...	7		
<b>Deport Jar.—</b>				
Kani ...	...	15		
Kasi Danda	...	41		
Dingar Dhan	...	32		
Thobli ...	...	1		
Danda ...	...	175		
Inan ...	...	8		
Upla ...	...	3		
Firangan Hd. Id.	...	9		
Gol bund ...	...	2		
Latha Ins ...	...	1		
<b>Sivana Range.—</b>				
Pida Dhan	...	14		
Golia ...	...	29		
Ins Bore ...	...	2		
Upla ...	...	58		
Nimh wood	...	1		
<b>Jaswanpura.—</b>				
Adbari Salar	...	4		
Danda Dhan	...	20		

1043

287

104

24

## Annual Form No. 59.

Forest Department Marwar State. Account of timber and other produce cut or collected by Raj Agency and brought to sale Depot or sold locally during the year 1917-18.

Particulars.	No. or quantity.	Cubic feet.	TOTAL OF EACH HEAD.		Cubic feet.	No. or quantity.	Particulars.	No. or quantity.	Cubic feet.	TOTAL OF EACH HEAD.		REMARKS.
			No. or quantity.	Cubic feet.						No. or quantity.	Cubic feet.	
							<i>Barmer Line —</i>					
							Singri Dhan ...	3				
							Thobli ...	3				
							Golis ...	19				
							Bevala ...	2				
										27		
							Total Utilised by Depart- ment.			1,915		
							STOCK OFF ON ACCOUNT OF SHORTAGE DECK.—					
							<i>Bati Range.—</i>					
							Karya Tree ...	3				
							Khiri ...	69				
							Gol logs ...	47				
							Thobli ...	11				
							Salar Tree ...	70				
							Hal Dhan ...	6			206	
							<i>Sojat Range.—</i>					
							Khiri ...	19				
							Danda ...	439			478	
							DEPOT JAT.—					
							Ins ...	18				
							Upla ...	16				















BALANCE AT START OF THE YEAR.—		TRUCK RECEIPTS.—		BALANCE AT THE END OF YEAR.—		GRAND TOTAL	
Bali	...	...	...	...	...	...	...
Desuri	...	...	...	...	...	...	...
Siwaha	...	...	...	...	...	...	...
Depotjat	...	...	...	...	...	...	...
Jodhpur	...	...	...	...	...	...	...
Jaswantpura	...	...	...	...	...	...	...
Barmer Line	...	...	...	...	...	...	...
Bali	...	...	...	...	...	...	...
Jaswantpura	...	...	...	...	...	...	...
GRAND TOTAL	...	...	...	...	...	...	...

Bali 1895 &  
 Desuri 150

## Annual Form No. 59.

Forest Department Marwar State. Account of timber and other produce cut or collected by Raj Agency and brought to sale Depot or sold locally during the year 1917-18.

Particulars.	No. of quantity.	Cubic feet.	TOTAL OF EACH HEAD.		Particulars.	No. or quantity	Cubic feet.	TOTAL OF EACH HEAD.		REMARKS.
			No or quantity.	Cubic feet.				No or quantity.	Cubic feet.	
On account Receipts.—					Cut s Disposal.—		No			
Depotjat ...	3 0 0	5 Bgs.			Bali ...	15 8 12	16			
Siwana ...	6 33 0	No. 16			Depotjat ...	3 0 0	5			
Jodhpur ...	12 1 0	.8			Siwana ...	4 34 8	16			
Barmer Line	11 5 4	.8			Jaswantpura ...	0 29 4	...			
					Sajat ...	3 0 0	5		No. B. et	
TOTAL			32 39 4	32	Balotra ...	6 6 12	...	32 39 4	32 10 1	
GRAND TOTAL			622 36 15½	785	TOTAL DISPOSAL ...			431 2 13	34 10 1	
					Balance at close of the year.					
					Bali ...	31 33 6	No. 721			
					Depotjat ...	88 30 0				
					Siwana ...	1 20 0				
					Jodhpur ...	16 15 6½	22			
					Jaswantpura ...	51 29 14				
					Barmer ...	1 25 8	5 1			
					Total Balance ...			191 34 2½	No. 731	
					GRAND TOTAL ...			622 36 15½	785	

Annual Form No 61.



**Form No. 61.**

*Different Ranges of Barwa Forests during 1916-17.*

[illegible]



## Forest Department Marwar State. Summary of

Budget Heads.	Sadar.	EASTERN DIVISION			
		Bali.	Desuri.	Sejat	Depot Range.
A—Conservancy and works.					
I.—Timber and other produce removed from the Forests by Raj Agency—					
(a) Timber ... ..	74 5 3	2,001 5 9	539 1 3	916 15 6	187 6 11
(b) Fire-wood ... ..	911 11 6	2,837 0 3	63 7 0	5,022 14 0	2,696 3 0
(c) Bamboos ... ..	19 12 0	145 5 0	118 7 6	1 15 0	23 14 0
(d) Grass and Minor produce...	266 1 6	140 6 6	177 1 6	42 8 6	10 4 9
II—Timber and other produce removed from the forests by purchasers— or consumers ... ..	451 3 10	36 10 0	...	62 2 0	...
III—Confiscated drift and waif wood ... ..	...	...	...	...	...
IV.—Revenue from forests not managed by Raj—					
(a) Duty on foreign timber and other forest produce ... ..	...	...	...	...	...
(b) Revenue from shared and private forests ... ..	...	...	...	...	...
V—Revenue from leased forests and payment to state holders in forests managed by Raj—					
...	...	...	...	...	...
VI—Live stock stores tools and plants—					
(a) Purchase of Cattle ... ..	...	...	...	32 2 0	...
(b) Keep and feed of Cattle ... ..	...	...	...	...	...
(c) Purchase of stores Tools and plants ... ..	65 8 9	21 14 0	2 6 0	16 14 0	7 11 6
VII—Communications and Buildings—					
(a) Roads and Bridges ... ..	102 15 6	193 3 6	92 12 6	239 12 6	...
(b) Buildings ... ..	36 1 0	67 5 0	199 7 9	202 9 6	49 15 6
(c) Other works ... ..	...	...	...	...	...
VIII—Demarcation Improvements and extension of Forests—					
(a) Demarcation ... ..	11 12 0	5 2 0	4 11 0	169 0 0	...
(b) Compensation of lands ... ..	1,291 6 9	...	49 8 0	166 10 0	...
(c) Surveying and working Plans	2,107 4 11	0 8 0	25 13 9	83 10 0	13 11 0
(d) Sowing and Planting ... ..	18 15 0	38 0 3	82 6 0	260 10 9	56 14 6
(e) Protection from fire ... ..	...	86 0 0	36 0 0	94 0 0	...
(f) Other works ... ..	...	1 4 0	21 14 6	...	...
IX.—Miscellaneous—					
(a) Refunds ... ..	1,129 0 6	...	...	0 3 0	...
(b) Law charges ... ..	...	...	...	...	...
(c) Other charges ... ..	887 1 0	0 12 0	26 8 6	9 12 0	...
Total A Conservancy ... ..	7,393 3 6	5,621 12 3	1,439 9 3	7,621 10 9	3,046 1 2

—(Continued).

*Expenditure of different Ranges in Marwar Forests during 1916-17.*

WESTERN DIVISION.			DIRECTION DIVISION.					TOTAL.
Sivana.	Jalore	Jawantpura	Jodhpur	Parbatsar.	Pali	Badmer Line.	Jamun	
40 5 6	30 5 9	121 15 0	253 3 9	...	...	1 1 0	...	4,166 1 3
47 14 0	210 1 6	0 8 0	5,586 6 10	...	...	13 15 6	...	17,320 1 7
41 13 9	...	4 11 9	49 8 6	...	...	...	...	404 10 6
20 12 0	12 5 9	101 5 0	159 5 3	...	...	...	...	962 2 9
...	...	21 8 0	7 9 0	...	...	...	...	579 0 10
...	...	...	...	...	...	...	...	...
...	...	10 0 0	...	...	...	...	...	10 0 0
...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	32 2 0
...	...	...	...	...	...	...	...	...
2 8 0	1 13 6	3 3 6	76 1 1	3 8 0	0 4 0	...	...	221 12 4
...	21 6 6	...	...	...	...	...	...	650 2 6
9 15 0	72 8 9	7 6 0	702 4 6	39 9 0	4 8 0	...	...	1,391 10 0
5 0 0	...	0 8 0	...	...	...	...	...	5 8 0
...	1 0 0	...	...	...	...	...	...	191 9 0
...	...	...	...	...	...	...	...	1,507 8 9
...	...	...	5 2 0	...	...	...	...	2,236 1 8
20 6 0	140 0 3	137 6 6	4 4 6	6 12 0	...	...	...	815 11 9
...	...	...	...	...	...	...	...	216 0 0
...	...	2 8 0	...	...	...	...	...	25 10 6
...	...	...	...	...	...	...	...	1,129 3 6
0 10 0	...	...	...	...	...	...	...	0 10 0
46 4 9	...	0 10 0	82 0 9	0 8 0	...	...	...	1,079 1 0
234 9 0	615 2 0	414 12 9	6,951 14 2	50 5 0	4 12 0	15 0 6	0 0 0	33,011 12 4

## Forest Department Marwar State. Summary of

Budget Heads	Sadar	EASTERN DIVISION				
		General	Bali.	Desun.	Sojat	Depot Range
Brought forward Total A.	7,393 3 6	...	5,624 12 3	1,439 9 3	7,321 10 9	3,046 1 2
B—ESTABLISHMENT.						
I—Salaries—						
(a) Superior Establishment...	2,400 0 0	...	...	...	...	...
(b) Executive ...	...	900 0 0	260 0 0	180 0 0	479 12 0	...
(c) Protective ...	226 0 3	...	1,479 5 3	1,020 8 3	1,569 3 0	235 12 0
(d) Office ...	2,320 11 6	271 10 1	142 8 0	...	74 9 6	...
(e) Pension Contribution ...	...	...	...	...	...	...
II—Travelling allowances—						
(a) Superior Establishment...	319 13 9	...	...	...	...	...
(b) Executive "	...	169 3 3	120 7 0	71 1 3	143 3 9	...
(c) Protective "	100 12 5	1 14 9	206 15 3	85 8 0	92 8 3	30 14 9
(d) Office "	147 12 3	50 2 6	6 2 0	...	14 11 9	...
(e) Keep and of Conveyance	360 0 0	180 0 0	120 0 0	90 13 0	180 0 0	...
III—Contingencies—						
(a) Stationary ...	421 15 9	...	0 2 0	1 2 6	...	2 9 0
(b) Tents and record ...	5 2 0	...	1 4 0	...	...	3 8 0
(c) Rents, Rates & Taxes ...	...	...	2 4 0	...	...	...
(d) Official Postage ...	390 1 0	...	...	...	...	...
(e) Sundries ...	1,083 12 3	27 15 9	25 6 6	9 9 6	22 4 0	25 2 6
Total B Establishment ...	7,778 1 2	1,600 14 4	2,304 6 0	1,458 10 6	2,576 4 3	297 14 3
Total A. and B ...	15,171 4 8	1,600 14 4	7,989 2 3	2,696 3 9	5,897 15 0	3,343 15 5
Fuel and Fodder Reserves ...	...	...	...	...	30 9 6	110 10 0
Total Forest ...	15,171 4 8	1,600 14 4	7,989 2 3	2,898 3 9	5,978 8 6	3,454 9 5
Add Geology ...	...	...	...	...	...	...
" Arboriculture ...	...	...	...	...	...	...
" Agriculture Farm ...	...	...	...	...	...	...
" Grass Storage ...	...	...	...	...	...	...
Total Raj Department ...	...	...	...	...	...	...
Raipur ...	...	...	...	...	...	...
Ghanerao ...	...	...	...	...	...	...
Bar ...	...	...	...	...	...	...
Baraulia ...	...	...	...	...	...	...
Babra ...	...	...	...	...	...	...
Somel ...	...	...	...	...	...	...
Uchmat &c (Jaswantpura) ...	...	...	...	...	...	...
Total Jagir ...	...	...	...	...	...	...
GRAND TOTAL ...	...	...	...	...	...	...



## Annual Form No 62.

Forest Department Marwar State Account Current for the year 1916-17.

	Rs. a. p.	Rs. a. p.		Rs. a. p.	Rs. a. p.
Cash Balance (Imprest)	6,075 0 0	6,075 0 0	Remittance to treasury	...	...
Revenue as per Annual Form No. 61:-			Forest revenue in cash and adjustment including F. F. R.	1,06,687 14 7	...
Forest Conservancy including Fuel and Fodder reserves	1,06,707 11 6	...	Arboriculture	1,371 11 6	...
Arboriculture	1,472 6 0	...	Geology	16,438 2 6	...
Jodhpur Agriculture Farm	1,826 15 0	...	Agriculture Farm	1,326 2 6	...
Cattle pound	2,417 9 9	...	Cattle pound...	2,209 10 0	...
Grass storage	32 5 4	...	Grass storage	32 5 6	1,28,165 14 7
Geology	16,448 3 0	1,28,905 3 3	Payment as refund of advances etc. Expenditure as per Form No 61.	...	1,305 15 0
Revenue in advance or unsettled shares	...	1,717 3 6	Forest Conservancy including Fuel and Fodder	58,200 0 10	...
Advances by recoupment of Imprest expenses and direct payment from treasury and adjustment by book transfer	84,721 15 7	84,721 15 7	Geology	1,846 14 1	...
			Arboriculture	12,452 6 9	...
			Agriculture	8,626 9 8	81,125 15 4
			Grass storage through this office	...	3,596 0 3
			Imprest	...	6,075 0 0
			Balance in Hand	...	1,180 9 2
Total	...	2,21,449 6 4	Total	...	2,21,449 6 4

## ANNUAL FORM NO. 63.

Forêt Department, Marwar State, Revenue Received and outstandings on account of Revenue during the year 1916-17.

Ranges.	Particulars.	Balance at commencement of the year.	Value of Sales.	Total.	Realised during the year.	Balance	Remarks.
	Forest Conservancy						
Bali...	R. I. a. ...	493 10 3	12,002 5 9	13,096 0 0	12,797 6 3	298 9 9	
Desuri	R. I. b. ...	5,739 0 3	36,335 14 4	42,065 14 7	35,060 14 11	7,004 15 8	
Sojka.	R. I. c. ...	181 14 6	829 2 0	1,011 0 6	925 2 6	85 14 0	
Sivana	R. I. d. ...	531 10 6	1,367 4 3	1,901 14 9	1,147 6 6	754 8 3	
Jalore	R. II. a. ...	131 0 0	4,510 9 6	4,691 9 6	4,593 6 6	98 3 0	
Jaswantpura	R. II. b. ...	2,422 1 0	5,673 7 6	8,095 8 6	7,203 6 9	892 1 9	
Parbatsar	R. II. c. ...	28 5 0	6.2 7 9	95 12 9	673 14 3	286 14 6	
Pali	R. II. d. ...	72 8 0	8,340 5 4	8,678 13 4	5,597 13 4	3,080 14 0	
Jetaran	R. III. ...	41,108 4 9	13,320 2 3	45,817 7 0	31,237 13 9	14,589 9 3	
Kani Barmer	R. IV. a. ...	317 12 6	2,512 0 3	3,159 12 9	2,258 10 9	901 2 0	
Jodhpur	R. IV. b. ...	...	140 1 0	140 1 0	140 1 0	...	
	R. V. a. ...	...	12 1 6	12 1 6	12 1 6	...	
	R. V. b. ...	...	3 4 0	3 4 0	3 4 0	...	
	R. V. c. ...	122 9 0	2,834 3 10	2,916 12 10	2,707 15 10	178 13 0	
Geology	...	...	16,551 5 6	16,454 5 6	16,418 3 0	6 2 6	
Arbiculture	...	169 4 3	1,617 5 6	1,506 9 9	1,472 6 6	354 3 3	
Agriculture	...	...	1,826 15 0	1,826 15 0	1,825 15 0	...	
Fuel and F. R.	...	...	2,299 11 8	2,299 11 8	2,288 11 8	11 0 0	
	Total	51,742 0 0	1,03,236 2 11	1,51,078 2 11	1,21,155 4 0	28,522 14 11	

## Annual Form No. 65.

*Forest Department Marwar State Financial Results for the year 1916-17.*

Range	TIMBER AND OTHER PRODUCE REMOVED FROM THE FOREST BY RAJ AGENCY.		OTHER REVENUE.		Formation protection and improvement of Forest charges.	TOTAL.		REMARKS.
	Receipts.	Charges.	Receipts.	Charges.		Receipts.	Charges.	
Godhwar	7,748	5,124	8,431	4,285	181	16,299	9,590	
Desuri	2,509	898	5,857	1,780	220	8,366	2,898	
Soyat	3,741	5,981	6,753	3,220	774	10,404	9,978	
Depot Jat	7,138	2,918	91	496	71	7,229	3,485	
Sirani	661	160	1,101	1,609	20	1,762	1,779	
Jalore	306	253	1,213	2,443	141	1,519	2,837	
Jaywantpura	655	292	1,461	1,085	140	2,116	1,457	
Jodhpur	25,787	7,349	29,946	13,606	3,439	55,733	24,394	
Parbatsar	...	...	812	594	7	812	601	
Pali	180	...	678	525	...	853	525	
Luni Badmer Line	246	15	89	551	...	335	566	
Jetaran	960	...	225	90	...	1,185	90	
Total	40,931	22,923	56,777	30,284	4,903	1,06,708	58,200	

